A STUDY TO EVALUATE THE EFFECTIVENESS OF BENSON'S RELAXATION THERAPY ON REDUCTION OF PAIN AND STRESS AMONG POST CAESAREAN MOTHERS ADMITTED IN KMCH, COIMBATORE

Reg No. 301220459

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M.G.R MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILLMENT OF REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING.

APRIL – 2014

CERTIFICATE

This is to certify that the dissertation entitled "**A STUDY TO EVALUATE THE EFFECTIVENESS OF BENSON'S RELAXATION THERAPY ON REDUCTION OF PAIN AND STRESS AMONG POST CAESAREAN MOTHERS ADMITTED IN KMCH, COIMBATORE"** is submitted to the faculty of nursing under the Tamilnadu DR. M.G.R Medical University, Chennai by **Reg No. 301220459** in partial fulfillment of requirement for the degree of Master of Science in Nursing. It is the bonafied work done by her and the conclusions are her own. It is further certified that this dissertation or any part thereof has not formed the basis for award of any degree, diploma or similar studies.

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A STUDY TO EVALUATE THE EFFECTIVENESS OF BENSON'S RELAXATION THERAPY ON REDUCTION OF PAIN AND STRESS AMONG POST CAESAREAN MOTHERS ADMITTED IN KMCH, COIMBATORE

APPROVED BY DISSERTATION COMMITTEE ON JANUARY 2013

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CHAPTER I

INTRODUCTION

"For fast acting relief, try slowing down".

-Lily Tomin.

Caesarean section is the birth of a foetus accomplished by performing a surgical incision through the maternal abdomen and uterus. It is one of the oldest surgical procedures as known throughout history. This alternative option is exercised based on the health status of mother and child at the time of labor. About 32 percent of mothers prefer planned caesarean deliveries. Hence, the outcome of a normal pregnancy can be achieved either through a vaginal delivery or a C-section. The post LSCS discomfort that include pain and stress experienced by mothers after cesarean delivery may vary from one woman to another.

Pain is a multi-faceted phenomenon. It is an individual unique experience. Pain can also be defined as "An unpleasant experience which we primarily associate with tissue damage or described in terms of tissue damage or both". According to **Mc Caffery (1979),** "Pain is whatever the experiencing person say it is, existing whenever he says it does". **(Potter & Perry, 2009)**

Pain after a surgery is usual. Pain, can however harm the body's ability to recover after surgery. After caesarean, women reported obviously high levels of pain during the first 24 hours and most of them experience intense pain even after taking analgesics. Acute pain is a physiological mechanism that protects the individual from a harmful stimulus. **(Potter & Perry, 2009)**

Stress is a complex phenomenon. It is a very subjective experience. What may be challenge for one will be a stressor for another. Stress is the term often used to describe distress, fatigue and feelings of not being able to cope. According to **Humphrey, (1992)** " In essence, stress can be considered as "any factor, acting internally or externally, that makes it difficult to adapt and that induces increased effort on the part of the person to maintain a state of equilibrium both internally and with the external environment."

According to **Bowman, (1998)** "Stress is the body's automatic response to any physical or mental demand placed upon it.

The term stress has been derived from the Latin word 'stringer' which means to draw tight. The term was used to refer the hardship, strain, adversity or affliction. Stress is an integral part of natural fabric of life. It refers both to the circumstances that place physical or psychological demands on an individual and to the emotional reactions experiences in these situations **(Hazards, 1994).**

When under stress body releases hormones that produce the "fight-or-flight response." Heart rate and breathing rate go up and blood vessels narrow thereby restricting the flow of blood. This response allows energy to flow to parts of your body that need to take action, for example the muscles and the heart. Stress may worsen certain conditions, such as asthma and it is also linked to depression, anxiety and increases pain perception as well.

Relaxation response indeed plays a vital role in reducing stress levels and pain perception at varying degrees.

The various techniques for evoking the relaxation response are:

1. Imagery
2. Progressive muscle relaxation
3. Repetitive prayer
4. Mindfulness meditation
5. Repetitive physical exercises
6. Breath focus

Elicitation of the relaxation response has been found to be an effective therapy in a number of diseases that include hypertension, cardiac rhythm irregularities, many forms of chronic pain, insomnia, infertility, the symptoms of cancer and AIDS, premenstrual syndrome, anxiety and mild and moderate depression and Benson's relaxation therapy elicits relaxation response is a simple and most effect way. In fact, to the extent that any

disease can be caused or made worse by stress to that extent evoking the relaxation response is an effective therapy **(Boston, 2009).**

NEED FOR THE STUDY

In the last few decades, the caesarean rates have increased dramatically in the developed countries. The incidence of caesarean section is steadily rising. Thirty-two percent of all births in the United States are by Caesarean section. The operations have been increasing steadily; and have become the most common surgery in American hospitals.

According to international statistics it is found that about 211 caesarean section were conducted in United States among a 1000 population, 217 in Australia and 333 in Italy per year.

Chronic pain after LSCS is significant in about 5.9Per cent. World Health Organization reviewed 110,000 births from nine countries in Asia during the period of 2007-2008 which shows that 27Per cent births were delivered by C- section. A similar survey conducted in Latin America found that 35Per cent were delivered by C- Section **(The times of India)**

India is also experiencing a rapid increase in C-section deliveries along with an increase in institutional deliveries. Caesarean section rates increased from 25.4 percent to 32 percent and about 32.6 percent has been documented from South India. In Karnataka about 22.2 percent of caesarean births are noted. Clearly these rates are unacceptably high all over the globe.

A study was conducted to assess the post-caesarean discomfort other than pain, as a neglected feature of postnatal care. Patients were asked to identify and report discomfort at each time in postnatal unit and re-interviewed after 24 hours. Among these 431 patients, 93 patients expressed various discomforts of which one is stress. Almost one-fourth of patients' who had undergone caesarean section suffered from post-operative discomfort accompanying pain. **(Reynold, 1997)**

From the last decades the caesarean sections rate has increased, and it results in discomforts such as pain and stress which is an alarming cause for conducting this study. As per the above statistics of cesarean section discomfort the researcher is interested in incorporating complimentary therapies in providing nursing care for helping the clients in reducing the post caesarean discomfort. The subject expert's advice and also the researcher felt that it is the need of the hour to find out the effectiveness of certain non-pharmacological pain and stress relieving measure which may be useful in reducing post cesarean section pain. To be specific the researcher is intended to find the effectiveness of selected discomfort relieving technique which is taken from the concept of "Relaxation therapy" in which researcher attempts to identify the effect of Bensons relaxation technique in terms of reducing pain and stress among post caesarean section mothers.

STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of Benson's relaxation therapy on reduction of pain and stress among post caesarean mothers admitted in KMCH, Coimbatore.

OBJECTIVES:

The Objectives of the study were:

- To assess the level of pain and stress among post caesarean mothers before intervention in both control and experimental group.
- To assess the effectiveness of Benson's relaxation therapy on reducing pain and stress among post caesarean mothers in experimental group.
- To find out the association between pain and stress with demographic and clinical variables.

OPERATIONAL DEFINITIONS:

BENSON'S RELAXATION THERAPY:

It refers to a form of relaxation technique which focuses on breathing.

STRESS:

It refers to a state of feeling frustrated and anxious due to surgery and newly adopted maternal role measured using Hung's postpartum stress scale.

PAIN:

Pain is the self-report of unpleasant sensation which arises due to tissue damage after the caesarean section as measured through numerical pain scale.

POST CAESAREAN MOTHERS:

In this study it refers to the mothers who have delivered a live baby through caesarean section and who are in their 1st post-operative day.

HYPOTHESES:

H1: There will be statistically significant difference in the pain level after Benson's relaxation therapy among post caesarean mothers.

H2: There will be statistically significant difference in the stress level after Benson's relaxation therapy among post caesarean mothers.

ASSUMPTIONS:

- Mothers have pain and stress after caesarean section.

CONCEPTUAL FRAMEWORK

Nursing is a complex field of study with a need for practical and hands on training as well as knowledge of the theoretical and historical basis. A concept is an idea Conceptual framework is a group of concepts or ideas that are related to each other but the relationship is not explicit. Conceptual framework deals with abstractions that are assembled by virtue of their relevance to a common theme **(Polit and Hungler).** Conceptualization is a process of forming ideas that are utilized and forms in the conceptual framework of the development of research design. It helps the researcher to know what data is to be collected and gives direction to an entire research process. It provides certain frame of reference for clinical practice and research. The conceptual framework for this study was developed on the basis of Titler et el effectiveness model.

This model was based on **Titler et el (2004)** effectiveness model. Effectiveness indicates the benefits of health care that are achieved under ordinary circumstances for patients. In this model the independent variable is the demographic profile and the intervening variable is the intervention delivered by the nurse. This model was developed to test the relationship of these variables to effective outcome. In this study modified Titler et el (2004) effectiveness model was adopted.

EFFECTIVENESS:

It indicates the benefits of Benson's relaxation therapy on reducing pain and stress among post LSCS mothers. Based on the Titler (2004) et el effectiveness model subjects were selected according to the their demographic profile. The investigator applied Benson's Relaxation Therapy. The effectiveness or outcome of the application were evaluated by measuring pain using Numerical pain scale and stress using Hung's postpsrtum stress scale among Post LSCS mothers.

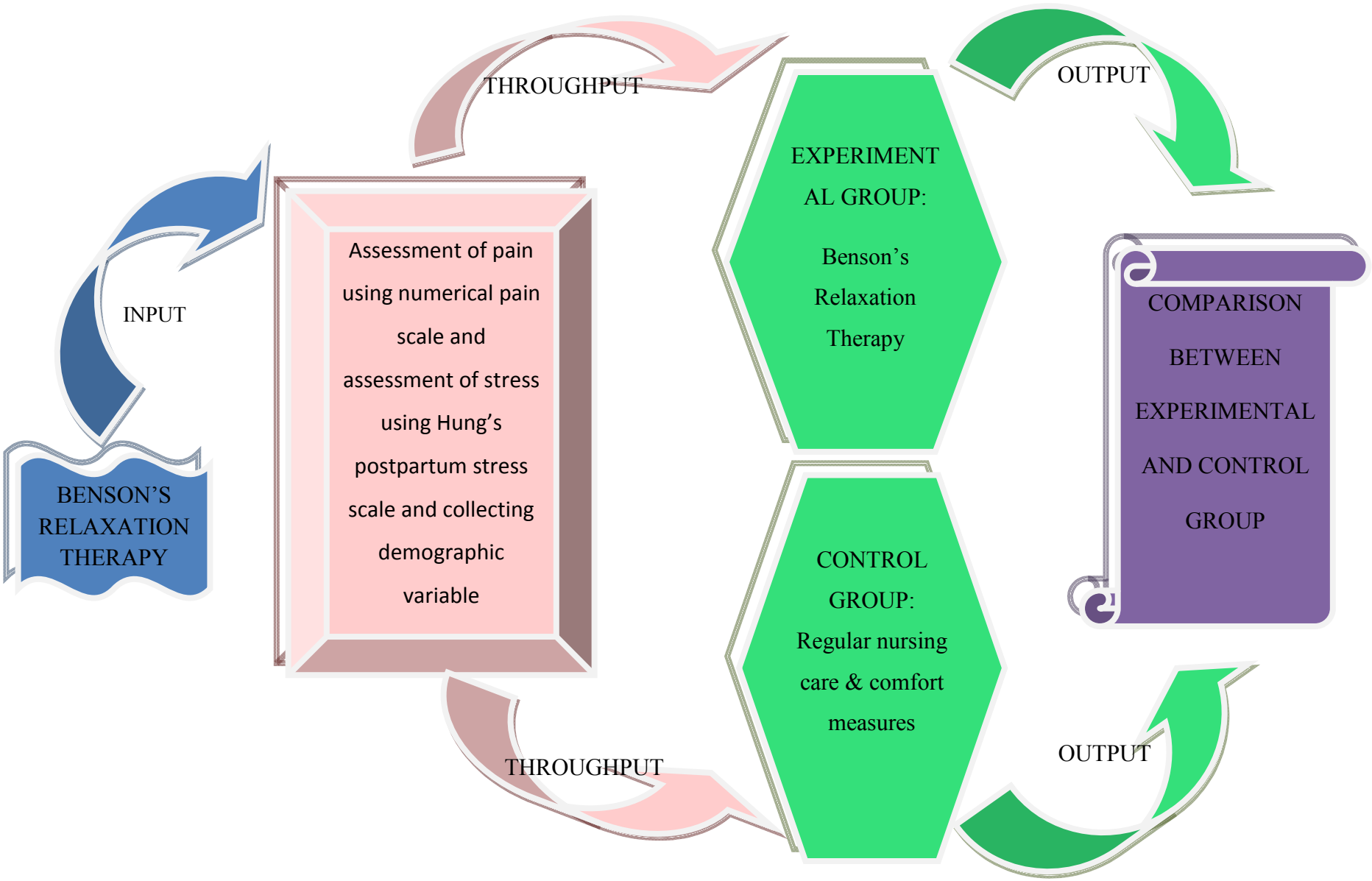


Figure No – 1: Conceptual Framework based on Titler et al effectiveness model (2004)

CHAPTER II

REVIEW OF LITERATURE

A literature review is a body of text that determines the aims to review the critical points of current knowledge including substantive findings as well as theoretical and methodological contribution to a particular topic. This chapter deals with several information that has been collected from various sources. These resources support the study.

1. Literature related to caesarean pain
2. Literature related to postpartum stress
3. Literature related to Benson's relaxation therapy

LITERATURE RELATED TO CAESAREAN PAIN

Francis & Fitzpark (2012) conducted a study to determine the nurses knowledge and patient experience regarding post operative pain. A pilot study with an exploratory design was conducted at a large teaching hospital in the eastern United States. The convenience samples of 31 nurses from the laparoscopic gastrointestinal and urologic surgical units and 14 post operative open and laparoscopic gastrointestinal and urologic patients who receive patient controlled analgesia (PCA) were included. The knowledge and attitude survey regarding pain was used to measure nurses knowledge about pain management. The Short-Form McGill Pain Questionnaire (SF-MPQ) was used to measure patients pain intensity. The nurses mean score on the knowledge and attitude survey regarding pain was 69.3 percent. The researcher concluded that patients experienced moderate pain, as indicated by the score on the SF-MPQ. There is a need to increase nurses knowledge of pain management.

Sousa et al.,(2009) conducted a study to measure and characterize post caesarean pain and its relationship with physical activities. 60 women were taken for the study. Pain was measured using numerical pain intensity scale and Mc Gill questionnaire. All

subjects reported that pain had limited their physical activities. Thus the study rated post caesarean pain as moderate.

Annika et al.,(2007) conducted a study regarding women's experience of postoperative pain and pain relief after caesarean birth and factors associated with pain and the birth experience were assessed. Descriptive patient survey was used. Data were collected through a questionnaire. The sample consisted of 60 women undergoing caesarean birth. Visual Analogue Scale were used to assess pain and women's birth experience measured on a seven – point likert scale. Women reported high levels of experienced pain during the first 24 hours. 78Per cent of the women scored greater than or equal to 4 on the Visual Analogue Scale, which can be seen as inadequately treated pain. Postoperative pain negatively affected breast feeding and infant care. They concluded that there is increased need for pain management after caesarean.

Sorenson et al.,(2004) conducted a study to find the incidence of chronic pain following caesarean. A questionnaire was sent in February/March 2003 to 244 consecutive patients who underwent caesarean section in a one year period from 1 October 2001 to 30 September 2002. A total of 220 patients(90.2Per cent) answered the questionnaire. The mean follow up time was 10.2 months (range 6-17.6). Postoperative pain resolved in most patients within 3 months but 27 patients(12.3Per cent) still had pain at the time of the interview 13 of 27 patients (5.9Per cent) pain was present daily or almost daily. Thus the study concluded that the Chronic pain after Caesarean section seems to be a significant problem in at least 5.9Per cent of patients.

Chung et al.,(2003) conducted a study to determine the patients level of pain and satisfaction with health care providers responsiveness to their reports of pain. The present prospective survey was conducted in a 1200 bed hospital to examine post operative patients current pain intensity, most intense pain experienced, satisfaction with postoperative pain management and differences regarding pain and satisfaction levels. Approximately 85 percent complained about varying degrees of pain during the 34 hours prior to the assessment of pain. When interviewed, most patients complained of mild to moderate pain (median=2 on a 10 point scale) while the median for 'worst intensity' was 5.8 per cent were satisfied with post operative pain management

LITERATURE RELATED TO POSTPARTUM STRESS:

Zainab Shaban.,et.al.,(2013) conducted a study with the objective of investigating the prevalence of Post-Traumatic Stress Disorder (PTSD) following childbirth. 103 (17. 2Per cent) women had symptoms of PTSD following childbirth based on the PTSD Symptom Scale (PSS). The results of logistic regression analysis revealed a significant correlation between maternal occupation ($P = 0.01$), depression level ($P < 0.001$) and anxiety level ($P < 0.001$) with PTSD following childbirth. PTSD from childbirth occurs in some women. Early identification of risk factors should lead to early therapeutic intervention in the mothers at risk of PTSD.

Olde, Hart, Kleber & Son.,(2006) conducted a study to assess the empirical basis of prevalence and risk factors of childbirth-related posttraumatic stress symptoms and PTSD in mothers, the relevant literature was critically reviewed. A MEDLINE and PSYCHLIT search using the key words "posttraumatic stress", "PTSD", "childbirth" and "traumatic delivery" was performed. A total of 31 articles were selected. The primary inclusion criterion was report of posttraumatic stress symptoms or PTSD specifically related to childbirth. Case studies and quantitative studies on regular childbirth and childbirth by emergency cesarean section were identified. Consistency among studies was found with regard to development of posttraumatic stress symptoms as a consequence of traumatic delivery. Among the identified risk factors were a history of psychological problems, trait anxiety, obstetric procedures, negative aspects in staff–mother contact, feelings of loss of control over the situation, and lack of partner support. The conclusion of the current review is twofold. First, traumatic reactions to childbirth are an important public health issue. Secondly, studying childbirth offers opportunity to prospectively study the development of posttraumatic stress reactions.

Wimberly Groer , Wilkinson Davis & Hemphill (2006) conducted a systematic review to review stress during the postpartum and the research supporting that a unique, protective biology exists in breastfeeding mothers that may reduce reactivity to stress. Data were collected from publications from nursing and biomedical literature. Studies reviewed were those that have contributed to concurrent conceptualizations of postpartum stress. Additionally, studies with sufficient participants were analyzed for common

findings. Animal literature was reviewed for studies on the stress responsein lactating and nonlactating animal models. Stress during the postpartum may be conceptualized as physical, intrapersonal, and interpersonal. Animal data and a few recent human studies suggest that the neuroendocrinology of the lactating mother may down-regulate the magnitude of the stress response.They conclude that a diminished stress response may serve to protect the breastfeeding maternal-infant dyad from environmental stimuli and to direct the physiology of the mother toward milk production, energy conservation, and nurturance.

Soderquist, K. Wijma and B. Wijma., (2002) conducted a study in a sample of 1550 recently delivered women, traumatic stress after childbirth was studied in relation to obstetric variables. A post-traumatic stress disorder (PTSD) symptom profile and traumatic stress symptoms were assessed by means of the Traumatic Event Scale (TES) Obstetric data comprised delivery mode, duration of the second stage of labor (the time from cervical dilation of 10 cm to partus) and the use of analgesia/anesthesia. Traumatic stress symptoms and having a PTSD symptom profile were both significantly related to the experience of an emergency cesarean section or an instrumental vaginal delivery. It is of clinical importance, however that most women with a PTSD symptom profile were found in the normal vaginal delivery group (NVD) This implies that a normal vaginal delivery can be experienced as traumatic, lust as an emergency cesarian section is not necessarily traumatic.

Hung CH & Chung HH., conducted a longitudinal study with data collected at the first, the third, and the fifth weeks of the postpartum period. Five hundred and twenty-six postpartum women were included in the study using stratified sampling from clinics and hospitals in Kaohsiung City in the southern part of Taiwan. The Hung Postpartum Stress Scale (HPSS), Smilkstein's Social Support Scale, and the Chinese Health Questionnaire were used to obtain information about the women's postpartum stress, social support, and health status at each time point.

Three factors associated with postpartum stress were identified by factor analysis: (1) maternity role attainment, (2) lack of social support, and (3) body changes. Furthermore, the level of postpartum stress at the third and the fifth postnatal weeks was

higher than at the first. Social support scores at this postnatal week were the highest among the three points in time. In addition, 29Per cent, 41Per cent and 41Per cent of the women at the first, third, and fifth weeks, respectively, had minor psychiatric morbidity.

LITERATURE RELATED TO BENSON'S RELAXATION THERAPY:

Masoume Rambod., et., al., (2013) conducted a randomized control trial to evaluate the effect of Benson's relaxation technique on pain and quality of life of haemodialysis patients. A total of 86 haemodialysis patients were randomly assigned to either the intervention (receiving Benson's relaxation technique) or the control group (routine care) from 2011 to 2012. The results of ANCOVA showed a significant difference between the intervention and the control group concerning the mean score of the intensity of pain ($F = 6.03$, $p = 0.01$). Moreover, a significant difference was found between the intervention and the control group regarding the total quality of life ($F = 10.20$, $p = 0.002$) and health-functioning ($F = 8.64$, $p = 0.004$), socioeconomic ($F = 12.45$, $p = 0.001$), and family ($F = 8.52$, $p = 0.005$) subscales of quality of life. Thus the researcher's concluded that Benson's relaxation technique might relieve the intensity of pain and improve the quality of life in haemodialysis patients.

Madhavi.,et.,al., (2013) conducted a study by implementing benson's relaxation training in hemodialysis patients that changes in perceived stress, anxiety and depression. The Beson's relaxation training was implemented in the intervention group for 15 min twice a day during 4 weeks. The patients were assessed by depression, anxiety and stress scale which was completed before and after the intervention. There were significant differences between stress and anxiety levels in case group before and after intervention and there is no meaningful difference between the mean of depression value in case group before and after intervention. Authors concluded that reducing stress and anxiety levels can provide more calmness for the patients that pursuing medical therapy would be accompanied with more tranquility.

Kwekkeboom & Elfa (2006) conducted a systematic review of relaxation intervention for pain. A literature search was conducted using the terms "relaxation" and "pain" in CINAHL, Medline, and PsychInfo from 1996 to March 2005. Studies were

reviewed and categorized based on the type of relaxation intervention, and summarized with respect to various study characteristics and results. Researchers reported support for relaxation interventions in 8 of the 15 studies reviewed. The most frequently supported technique was progressive muscle relaxation, particularly for arthritis pain. Investigators reported support for jaw relaxation and benson's relaxation intervention for relieving postoperative pain.

Marion Good.,(2006)., conducted a systemic review to assess the Effects of relaxation and music on postoperative pain. This review summarizes and critiques studies on the effectiveness of relaxation and music use during postoperative pain Relaxation and music were effective in reducing affective and observed pain in the majority of studies, but they were less often effective in reducing sensory pain or opioid intake However, the between-study differences in surgical procedures, experimental techniques, activities during testing, measurement of pain, and amount of practice make comparisons difficult. Furthermore, within studies, the problems of inadequate sample size, lack of random assignment, no assurance of pretest equivalence, delayed post-test administration and no control for opiates at the time of testing reduces the validity of the studies' conclusions.

Bagheri-Nesami M, Mohseni-Bandpei & Shayesteh-Azar M., (2006) conducted a study to assess the The effect of Benson Relaxation Technique on rheumatoid arthritis patients. The purpose of this study was to determine the effect of Benson Relaxation Technique combined with medication on disease activity in patients with Rheumatoid Arthritis. There was a significant difference between the two groups in anxiety, depression and feeling of well-being. Changes in clinical symptoms and laboratory findings were not large enough to be statistically significant between the two groups, but they indicated decline in disease progress. The results demonstrate that Benson Relaxation Technique can be an effective technique in reducing disease process in patients suffering from Rheumatoid Arthritis.

Roykulcharoen & Good., (2004) conducted a randomized control trial to assess the relaxation response in post operative pain relief. The relaxation group had less post-test sensation and distress of pain (26 and 25 mm less, respectively) than the control group ($P = 0{\cdot}001$). Relaxation did not result in significantly less anxiety or 6-hour opioid intake. However, group differences in state anxiety were in the expected direction and

fewer participants in the relaxation group requested opioids. Nearly all reported that systematic relaxation reduced their pain and increased their sense of control.

Tobias Esch, Fricchione & Stefano (2003)., conducted a study to The therapeutic use of the relaxation response in stress-related diseases. The objective of this work was to investigate a possible relaxation response (RR) and stress-related diseases. The RR has been shown to be an appropriate and relevant therapeutic tool to counteract several stress-related disease processes and certain health-restrictions, particularly immunological, cardiovascular, and neurodegenerative diseases/mental disorders.

Laurie Keefer, Edward B Blanchard (2001)., conducted a study to evaluate the effects of relaxation response meditation on the symptoms of irritable bowel syndrome. In this study, Herbert Benson's (1975) Relaxation Response Meditation program was tested as a possible treatment for Irritable Bowel Syndrome (IBS). Patients in the treatment condition were taught the meditation technique and asked to practice it twice a day for 15 minutes. Composite Primary IBS Symptom Reduction (CPSR) scores were calculated for each patient from end of baseline to two weeks post-treatment (or to post wait list). One tailed independent sample *t*-tests revealed that Meditation was superior to the control (P=0.04). Significant within-subject improvements were noted for flatulence (P=0.03) and belching (P=0.02) by post-treatment. By three month follow-up, significant improvements in flatulence (P<0.01), belching (P=0.02), bloating (P=0.05), and diarrhea (P=0.03) were shown by symptom diary. Constipation approached significance (P=0.07). Benson's Relaxation Response Meditation appears to be a viable treatment for IBS.

Dixhoorn, Duivenvoorden, Staal & Jan Pool.,(1989) conducted a study to assess the effectiveness of Physical training and relaxation therapy in cardiac rehabilitation. 156 myocardial infarction patients were randomly assigned to either exercise plus relaxation and breathing therapy (treatment A, n = 76) or to exercise training only (treatment B, n = 80). Effects on exercise testing showed a more pronounced training bradycardia and a remarkable improvement in ST abnormalities in treatment A ($p < 0.005$). Approximately half the patients showed a training success, with a more positive and less negative outcome in treatment A ($p = 0.09$). The odds for failure were 0.25 for treatment A and 0.51 for treatment B (odds ratio: 2.04; 95Per cent confidence interval, 0.94 to 4.6). Thus the risk of failure was reduced by half when

relaxation was added to exercise training. These results indicate that exercise training is not successful in all MI patients and that relaxation therapy enhances training benefit.

Wadden TA, de la Torre CS., (1980) conducted a study to assess Relaxation therapy as an adjunct treatment for essential hypertension. Evidence indicates that relaxation therapy in combination with medical treatment results in significantly greater reductions in systolic and diastolic blood pressure than the use of medical treatment alone. Progressive muscle relaxation, Benson's "relaxation response," hypnosis, and blood pressure biofeedback are the four most common behavioral treatments for essential hypertension. The first two of these are both effective and well suited to use in a family practice.

A methodological study was conducted to examine published evidence on the effectiveness of mind –body interventions during pregnancy on perceived stress, mood and perinatal outcomes. Data was collected through computerized searches of PubMed, Cinahl, Psych INFO and the Cochrane library. Twelve out of 64 published intervention studies between 1980 and February 2007 of healthy adult pregnant women met criteria for review. Studies were categorized by type of mind-body modality used. Progressive muscle relaxation was the most common intervention. Other studies used a multimodal psycho education approach or a yoga and meditation intervention. There is modest evidence for the efficacy of mind-body modalities during pregnancy. Treatment group outcomes included higher birth weight, shorter length of labor, fewer instrument-assisted births, reduced perceived stress and anxiety. There is evidence that pregnant women have health benefits from mind-body therapies used in conjunction with conventional prenatal care. Further research is necessary to build on these studies in order to predict characteristics of subgroups that might benefit from mind-body practices and examine the cost effectiveness of these interventions on perinatal outcomes.

CHAPTER III

METHODOLOGY

This chapter deals with the research methods used by the researcher to evaluate the effectiveness of Benson's relaxation therapy on reduction of pain and stress among post caesarean mothers admitted in KMCH, Coimbatore.

Research framework encompasses research design, setting the study, population, sample size, sampling technique, development and description of tool for data collection, content validity, reliability, pilot study, data collection procedure and statistical analysis.

RESEARCH DESIGN:

Time Series design was adopted for this study.

Experimental Group	$O_1O_2XO_3$	O_4XO_5	O_1XO_3	O_4XO_5	O_1XO_3	$O_4XO_5O_6$
Control group	$O_1O_2\ O_3$	$O_4\ O_5$	$O_1\ O_3$	$O_4\ O_5$	$O_1\ O_3$	$O_4\ O_5O_6$

O_1& O_4 – Pre test (Numerical pain scale)

X = Benson relaxation technique

O_3&O_5 – Post test (Numerical pain scale)

O_2 – Pre test (Postpartum stress scale)

O_6 – Post test (Postpartum stress scale)

RESEARCH VARIABLES:

Independent variable: Benson relaxation technique.

Dependent variables: Pain and level of stress in post caesarean mothers.

Extraneous variables: age, education, occupation, nature of delivery, parity.

SETTING OF THE STUDY:

The study was conducted in single rooms in postnatal wards in KMCH, Coimbatore. This is a super specialty NABH accredited hospital consisting of 800 beds with all modern equipment and facilities. Out of these 60 beds are occupied by the obstetric cases include antenatal ward, postnatal ward and labour room separately. In KMCH 100 mothers undergo caesarean section per month. Among them, usually 4-5 mothers per day undergo caesarean section.

POPULATION:

The population of this study comprises of post caesarean mothers who were admitted in KMCH, Coimbatore.

SAMPLE SIZE:

The sample size was 100 post caesarean mothers, 50 in the experimental group and 50 in the control group.

SAMPLING TECHNIQUE:

The sample was selected through purposive sampling technique and subjects were randomly assigned to experimental or control group.

CRITERIA FOR SELECTION OF THE SAMPLE

Inclusion criteria:

1. All the post caesarean mothers admitted in KMCH, Coimbatore.
2. Post caesarean mothers (1^{st} to 3^{rd} post op day)

Exclusion criteria:

1. Mothers of pre term babies
2. High risk post caesarean mothers with complications such as unsettled PIH and GDM

DEVELOPMENT AND DESCRIPTION OF TOOL FOR DATA COLLECTION

Section - 1.

Sample characteristics: a) Age: Up to 23 yrs, 24-28 yrs, 29yrs and above.

b) Education: High school, Undergraduate, Postgraduate

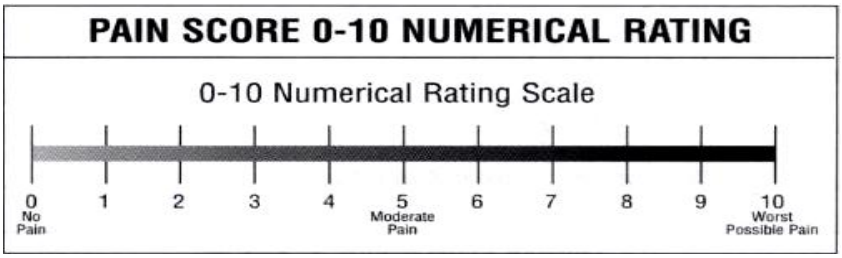
c) Occupation: Employed/ Home maker

d) Obstetrical score: Primi para, Second para, 3 & above

e) Type of LSCS: Elective/ Emergency

Section - 2.

Numerical pain scale.



Instruct the patient to choose a number from 0 to 10 that best describes their current pain. 0 would mean 'No pain' and 10 would mean 'Worst possible pain'.

0 – no pain

1 – 2 = mild pain

3 – 4 = moderate pain

5 – 6 = severe pain

7 – 8 = very severe pain

9 – 10 = worst possible pain

Section – 3: Hung's Postpartum stress scale

DESCRIPTION OF INTERVENTION

Benson's Relaxation therapy:

There are two essential steps:

1. Repetition of a word, sound, phrase, prayer, or muscular activity.
2. Passive disregard of everyday thoughts that inevitably come to mind and the return to your repetition.

The following is the generic technique is used in Benson's relaxation therapy:

1. Pick a focus word, short phrase, or prayer that is firmly rooted in your belief system, such as "one," "peace," "The Lord is my shepherd," "Hail Mary full of grace," or "shalom."
2. Sit quietly in a comfortable position.
3. Close your eyes.
4. Relax your muscles, progressing from your feet to your calves, thighs, abdomen, shoulder, neck and head.
5. Breathe slowly and naturally, and as you do, say your focus word, sound, phrase, or prayer silently to yourself as you exhale.
6. Assume a passive attitude. Don't worry about how well you're doing. When other thoughts come to mind, simply say to yourself, "Oh well," and gently return to your repetition.
7. Continue for ten to 20 minutes.
8. Do not stand immediately. Continue sitting quietly for a minute or so, allowing other thoughts to return. Then open your eyes and sit for another minute before rising.
9. Practice the technique twice daily.

CONTENT VALIDITY:

Content validity of the tool was obtained from nursing and medical subjects experts. The tool was given to experts in the field of nursing and medicine. The tool was reconstructed based on the suggestions obtained from experts.

PILOT STUDY:

Pilot study was conducted among 10 mothers who underwent LSCS, 5 in experimental and 5 in control group for a period of one week in KMCH. The study was found to be practically feasible.

Data Collection Method:

- Permission was obtained from the hospital authority.
- Samples were selected based on inclusion and exclusion criteria through purposive sampling technique and were randomly assigned to experimental and control group.
- Purpose and need for the study was explained to the post caesarean mothers.
- The informed consent was taken from experimental and control group.
- Pre intervention and post intervention assessments were conducted in both the groups
- Pain was measured by numerical pain scale before and after providing the Benson's relaxation therapy for 3 consecutive days, twice daily.
- Stress was measured by Postpartum stress scale, Pre test is done on the 1st day morning before intervention and post test is done on the 3rd day evening after intervention
- Intervention in the form of Benson's relaxation therapy was given to post caesarean mothers of the experimental group.

STATISTICAL ANALYSIS:

- The data were analysed using descriptive and inferential statistics.
- Descriptive statistics include mean and percentage
- Inferential statistics include independent 't' test and Chi square.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis of data collected to assess the effectiveness of Benson's relaxation therapy on reduction of pain and stress among post caesarean mothers.

Descriptive and inferential statistics were used for analysis of data. The collected data were organized as follows:

SECTION A: Distribution of subjects according to demographic and clinical variables

SECTION B: Distribution of subjects according to pre – test pain perception score of experimental and control group

SECTION C: Distribution of subjects according to post – test pain perception score of experimental and control group

SECTION D: Comparison of pre – test Pain perception scores of experimental and control group.

SECTION E: Comparison of post – test Pain perception scores of experimental and control group.

SECTION F: Distribution of subjects according to pre – test stress score of experimental and control group

SECTION G: Distribution of subjects according to post – test stress score of experimental and control group

SECTION H: Comparison of pre – test Stress scores of experimental and control group.

SECTION I: Comparison of post – test Stress of experimental and control group.

SECTION J: Association between post - test pain perception score and the demographic and clinical variables in the experimental group

SECTION K: Association between post - test pain perception score and the demographic and clinical variables in the control group

SECTION L: Association between post - test Stress score and the demographic and clinical variables in the experimental group

SECTION M: Association between post - test Stress score and the demographic and clinical variables in the control group

SECTION A

Table 1: **Distribution of subjects according to demographic and clinical variables**

Demographic and clinical variables	Number of subjects			
	Experimental group (n = 50)	Percentage (%)	Control group (n = 50)	Percentage (%)
AGE				
• upto 23	16	32	16	32
• 24 - 28	15	30	16	32
• 29 and above	19	38	18	36
EDUCATION				
• High School	10	20	17	34
• UG	25	50	17	34
• PG	15	30	16	32
OCCUPATION				
• Working	20	40	25	50
• Housewife	30	60	25	50
OBSTETRIC SCORE				
• Primi	29	58	27	54
• 2nd para	19	38	22	44
• 3 and above	2	4	1	2
TYPE OF LSCS				
• Elective	22	44	23	46
• Emergency	28	56	27	54

This table represents the distribution of samples according to the demographic and clinical variables.

Based on age, out of 50 subjects in the experimental group, 16(32%) belonged to the age group up to 23 years, 15(30%) belonged to the age group 24 – 28 years and 19(38%) belonged to the age group 29 years and above and out of 50 subjects in the control group, 16(32%) belonged to the age group up to 23 years, 16(32%) belonged to the age group 24 – 28 years and 18(36%) belonged to the age group 29 years and above.

Based on education, out of 50 subjects in the experimental group, 10(20%) had high school, 25(50%) had under graduate degree and 15(30%) had post graduate degree and out of 50 subjects in the control group, 17(34%) had high school, 17(34%) had under graduate degree and 16(32%) had post graduate degree.

Based on occupation, out of 50 subjects in the experimental group, 20(40%) were working and 30(60%) were home makers and out of 50 subjects in the control group, 25(50%) were working and 25(50%) were home makers.

Based on obstetric score, out of 50 subjects in the experimental group, 29(58%) were primi, 19(38%) were 2^{nd} para and 2 were 3 and above and out of 50 subjects in the control group, 29(58%) were primi, 19(38%) were 2^{nd} para and 2 were 3 and above.

Based on the type of LSCS, out of 50 subjects in the experimental group, 22(44%) had elective LSCS and 28(56%) had emergency LSCS and out of 50 subjects in the control group, 23(46%) had elective LSCS and 27(54%) had emergency LSCS

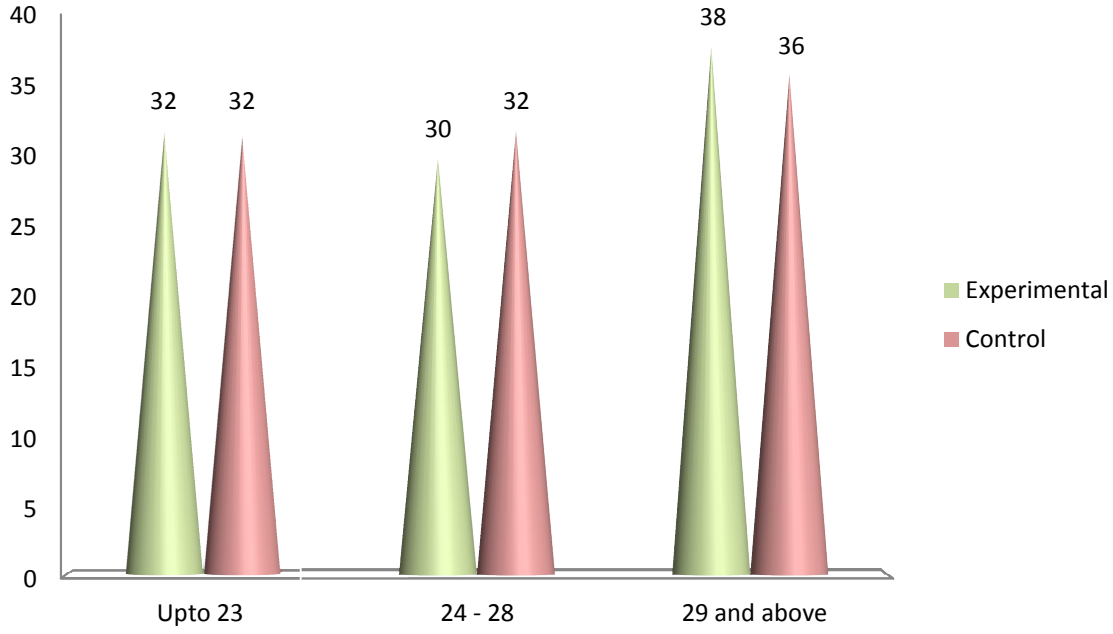


Figure 2: Distribution of subjects according to their age group

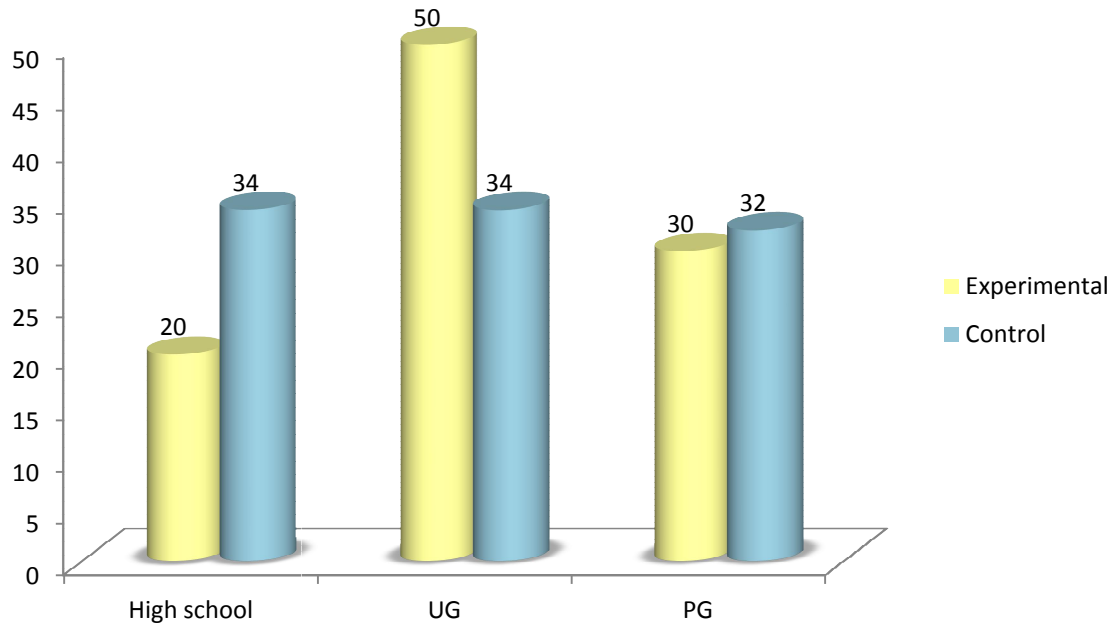


Figure 3: Distribution of subjects according to their Education

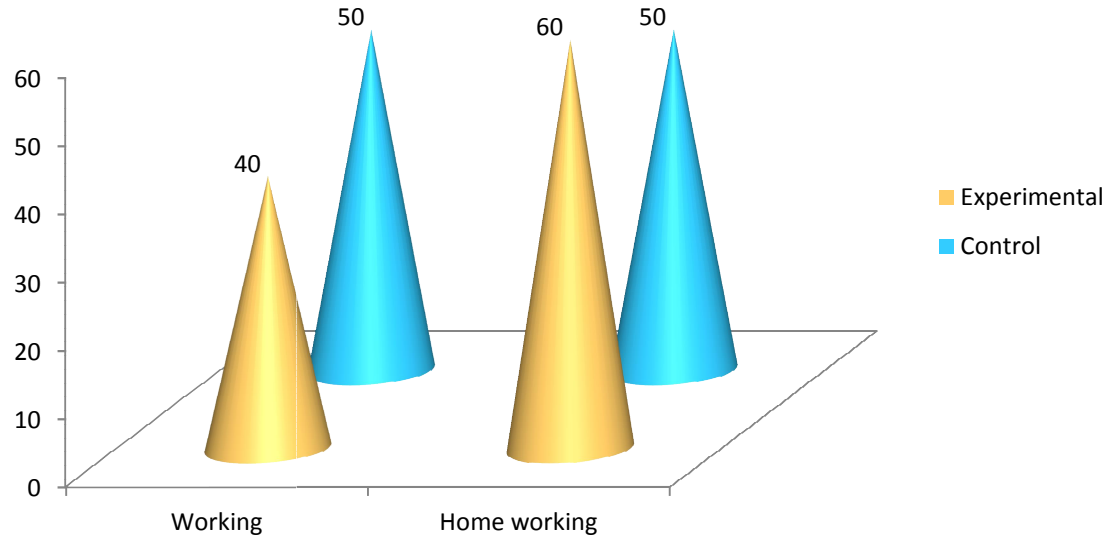


Figure 4: Distribution of subjects according to their Occupation

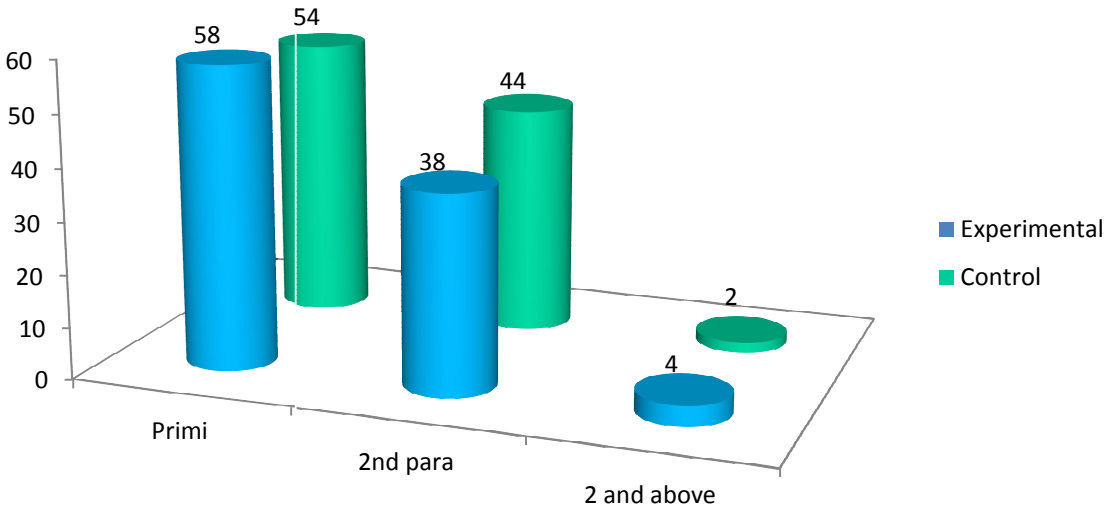


Figure 5: Distribution of subjects according to their Obstetrical score

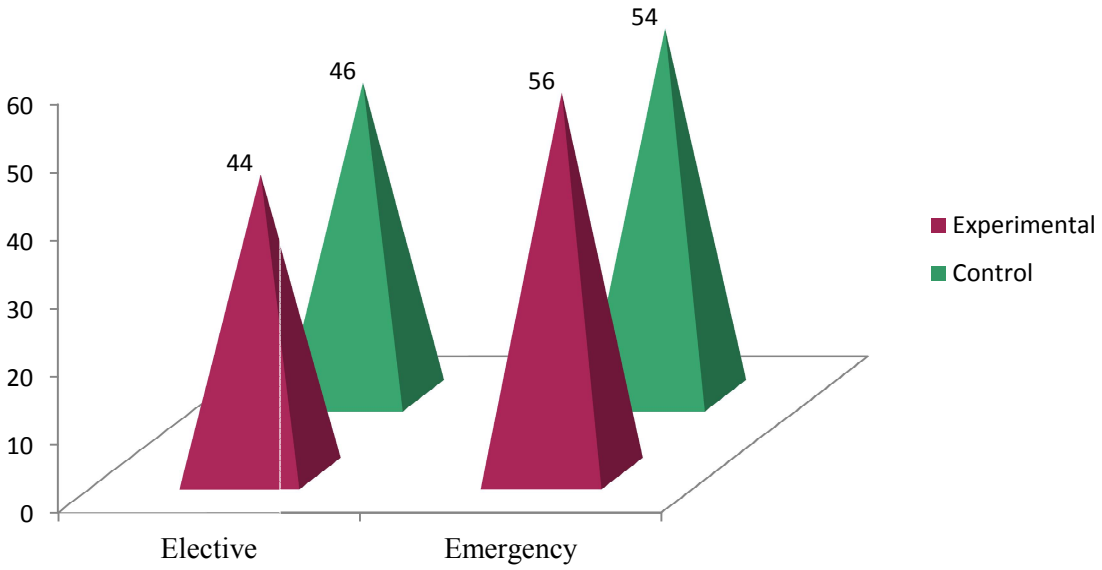


Figure 6: Distribution of subjects according to the type of LSCS

SECTION B

Table 2: Distribution of subjects according to pre test pain perception scores of experimental group

S. No	Level of pain	Experimental											
		Pre test 1	%	Pre test 2	%	Pre test 3	%	Pre test 4	%	Pre test 5	%	Pre test 6	%
1	No pain	-	-	-		-	-	-	-	-	-	20	40
2	Mild	-	-	8	16	11	22	45	90	50	100	30	60
3	Moderate	50	100	42	84	39	78	5	10	-	-	-	-
4	Severe	-	-	-	-	-	-	-	-	-	-	-	-
5	Very severe	-	-	-	-	-	-	-	-	-	-	-	-
6	Worst possible	-	-	-	-	-	-	-	-	-	-	-	-

Table 2 depicts the distribution of subjects according to pretest pain perception scores of experimental group

Table 3: Distribution of subjects according to pre test pain perception scores of control group

S. No	Level of pain	Control											
		Pre test 1	%	Pre test 2	%	Pre test 3	%	Pre test 4	%	Pre test 5	%	Pre test 6	%
1	No pain	-	-	-	-	-	-	-	-	-	-	2	4
2	Mild	-	-	-	-	4	8	19	38	40	80	48	96
3	Moderate	50	100	50	100	46	92	31	62	10	20	-	-
4	Severe	-	-	-	-	-	-	-	-	-	-	-	-
5	Very severe	-	-	-	-	-	-	-	-	-	-	-	-
6	Worst possible	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 depicts the distribution of subjects according to pre test pain perception scores of control group.

From table 2 and table 3 it is evident that in the experimental group 100% had moderate level of pain in the pre test 1 and in the control group 100% had moderate level of pain in the pre test 1. This shows that the pain perception among experimental and control group before intervention are similar to each other.

SECTION C

Table 4: Distribution of subjects according to post test pain perception scores of experimental group

S. No	Level of pain	Experimental											
		Post test 1	%	Post test 2	%	Post test 3	%	Post test 4	%	Post test 5	%	Post test 6	%
1	No pain	-	-	-		-	-	-	-	8	16	9	18
2	Mild	-	-	14	28	44	88	49	98	42	84	41	82
3	Moderate	50	100	36	72	6	12	1	2	-	-	-	-
4	Severe	-	-	-	-	-	-	-	-	-	-	-	-
5	Very severe	-	-	-	-	-	-	-	-	-	-	-	-
6	Worst possible	-	-	-	-	-	-	-	-	-	-	-	-

Table 4 depicts the distribution of subjects according to post test pain perception scores of experimental group

Table 5: Distribution of subjects according to post test pain perception scores of control group

S. No	Level of pain	Control											
		Post test 1	%	Post test 2	%	Post test 3	%	Post test 4	%	Post test 5	%	Post test 6	%
1	No pain	-	-	-	-	-	-	-	-	-	-	3	6
2	Mild	-	-	-	-	4	8	20	40	40	80	47	94
3	Moderate	50	100	50	100	46	92	30	60	10	20	-	-
4	Severe	-	-	-	-	-	-	-	-	-	-	-	-
5	Very severe	-	-	-	-	-	-	-	-	-	-	-	-
6	Worst possible	-	-	-	-	-	-	-	-	-	-	-	-

Table 5 depicts distribution of subjects according to pre test pain perception scores of experimental group.

From table 4 and 5 it shows that 50 (100%) had moderate pain in Post test 1both experimental and control group, 36 (72%) had moderate pain in experimental group where as 50(100%) had moderate pain in post test 2, 44(88%) had mild pain in experimental group whereas 4(8%) had mild pain in post test 3, 49(98%) had mild pain in experimental group whereas 20(40%) had mild pain in post test 4, 8(16%) had no pain in experimental group whereas 40(80%) had mild pain in post test 5, 9(18%) had no pain in experimental group whereas 3(6%) had no pain in post test 6.

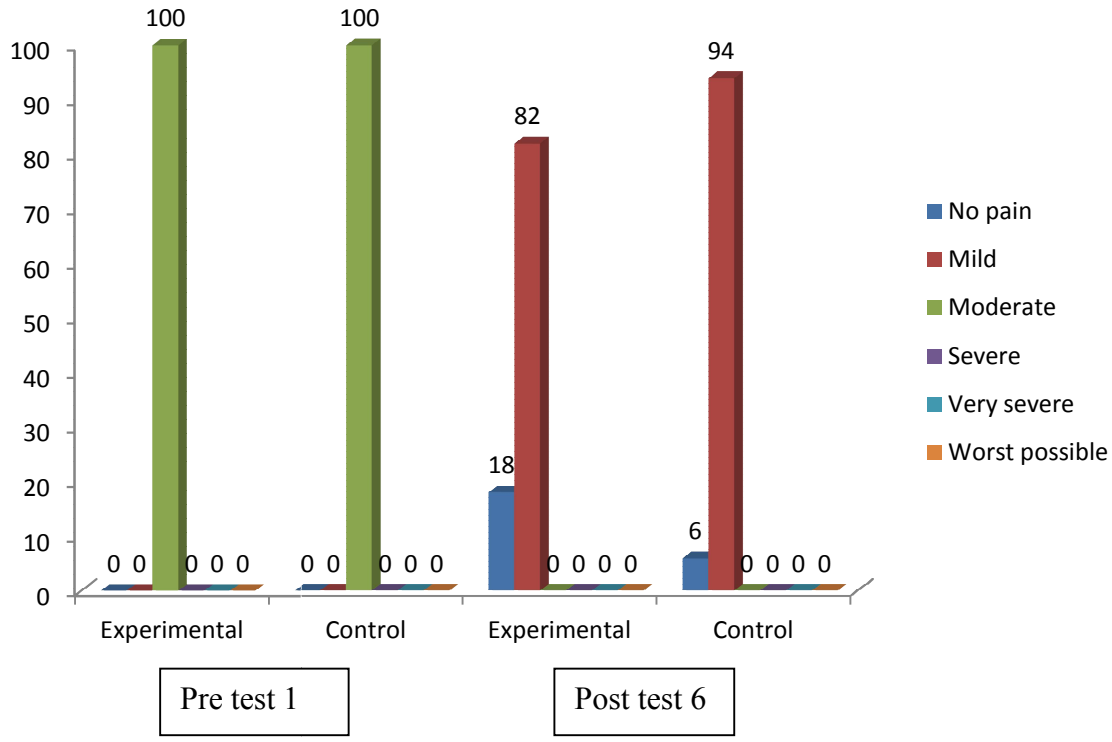


Figure 7: Distribution of subjects according to the Pre test 1 and post test 6 in experimental and control group

SECTION D

Table 6: Comparison of pre test pain scores of experimental and control group

S.No	Pain Score	Experimental		Control		Independent 't' test
		Mean	SD	Mean	SD	
1	Pre test 1	3.70	.462	3.68	.471	.214 (NS)
2	Pre test 2	3.18	.690	3.68	.471	-4.228**
3	Pre test 3	2.64	.776	3.14	.534	-3.751**
4	Pre test 4	1.92	.528	2.62	.530	-6.612**
5	Pre test 5	1.40	.494	2.10	.543	-6.731**
6	Pre test 6	.60	.494	1.44	.611	-7.551**

**p<0.01 NS- Non significant

Table 6 depicts the comparison of pre test pain scores of experimental and control group. The't' value of pretest1 is 0.214 which is not significant at 0.05 level of significance, 't' value of pretest 2, pretest 3, pretest 4, pretest 5 and pre test 6 are -4.228, -3.751, -6.612, -6.731 and -7.551 respectively which are statistically significant at 0.05 level of significance and it may be due to the intervention given in the previous observations.

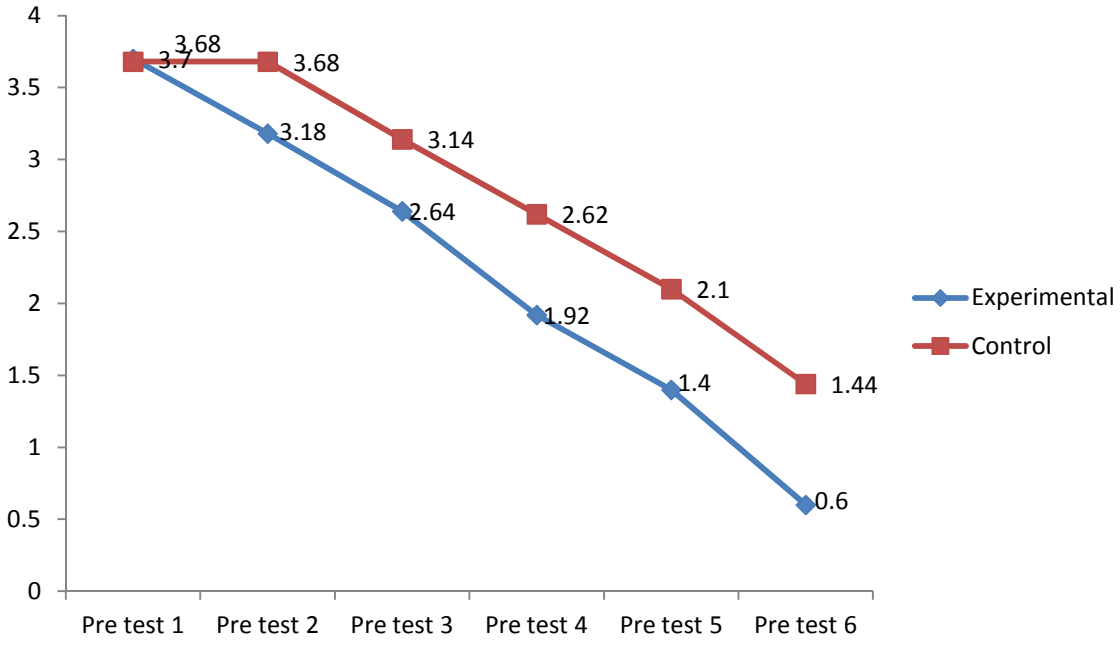


Figure 8: Comparison of Pain perception Pre test mean values in the experimental and control groups

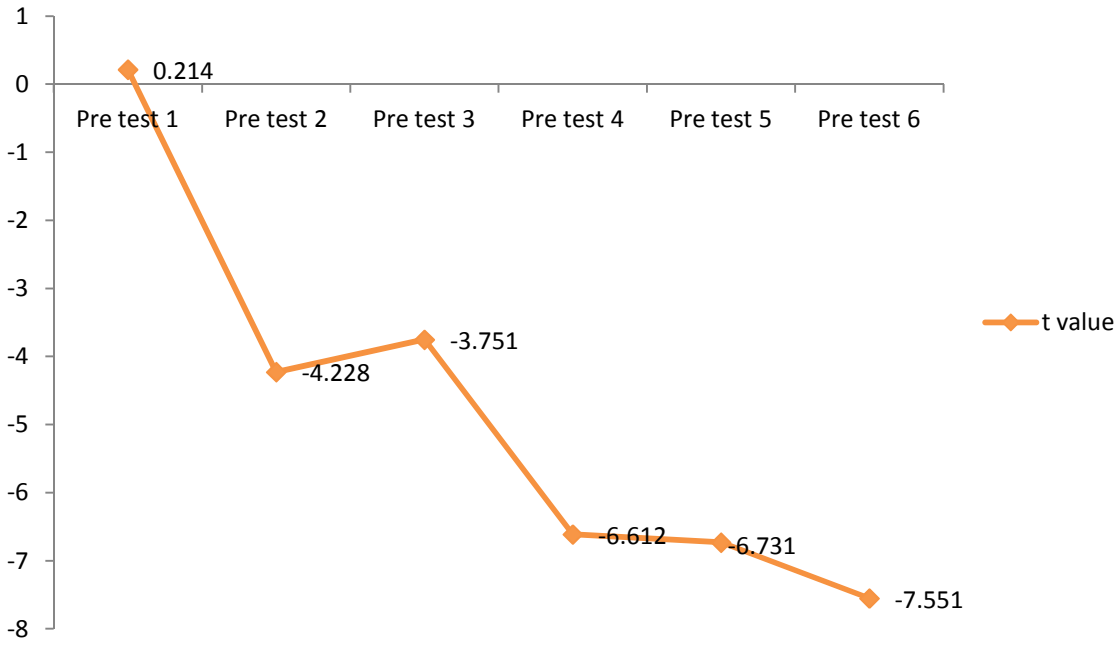


Figure 9: Comparison of Pain perception t value in the experimental and control groups

SECTION E

Table 7: Comparison of post test pain scores of experimental and control group

S.No	Pain Score	Experimental		Control		Independent 't' test
		Mean	SD	Mean	SD	
1	Post test 1	3.50	.505	3.68	.471	-1.843**
2	Post test 2	2.76	.517	3.68	.471	-9.295**
3	Post test 3	1.98	.622	3.14	.534	-9.995**
4	Post test 4	1.60	.534	2.62	.530	-9.579**
5	Post test 5	.96	.532	2.10	.543	-10.585**
6	Post test 6	.18	.388	1.44	.611	-12.302**

**p<0.01

Table 7 depicts the comparison of pre test pain scores of experimental and control group. The 't' value of post test 1, post test 2, post test 3, post test 4, post test 5 and post test 6 are -1.843, -9.295, -9.995, -9.579, -10.585 and -12.302 respectively which are statistically significant at 0.05 level of significance. The data shows that there is change in pain perception level among the experimental group after the intervention.

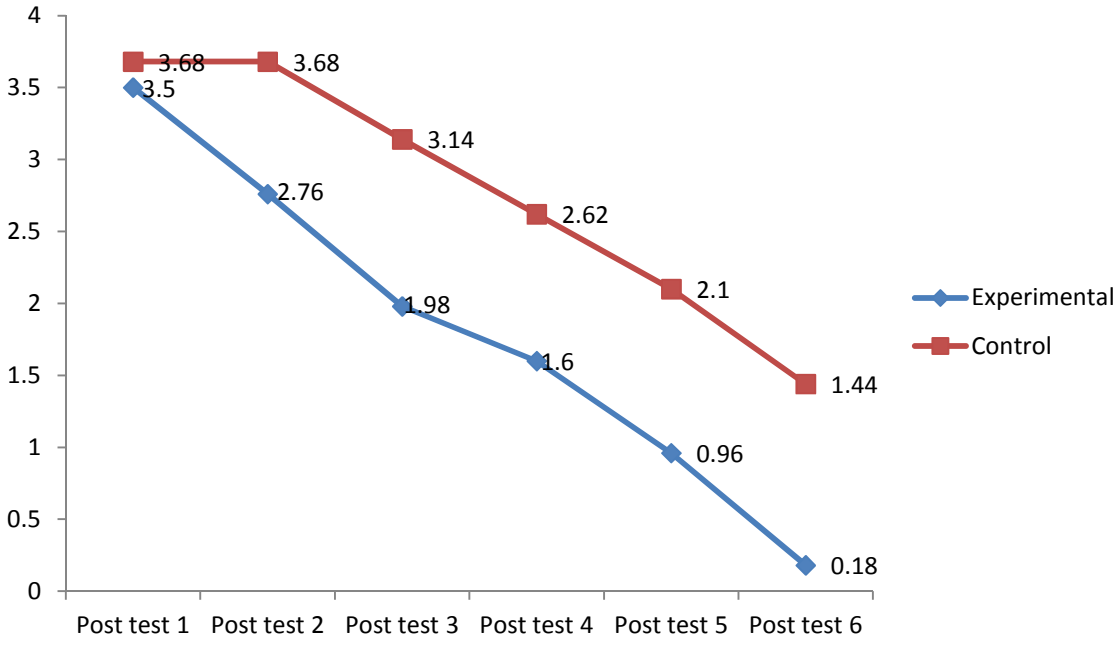


Figure 10: Comparison of Pain perception Post test mean values in the experimental and control groups

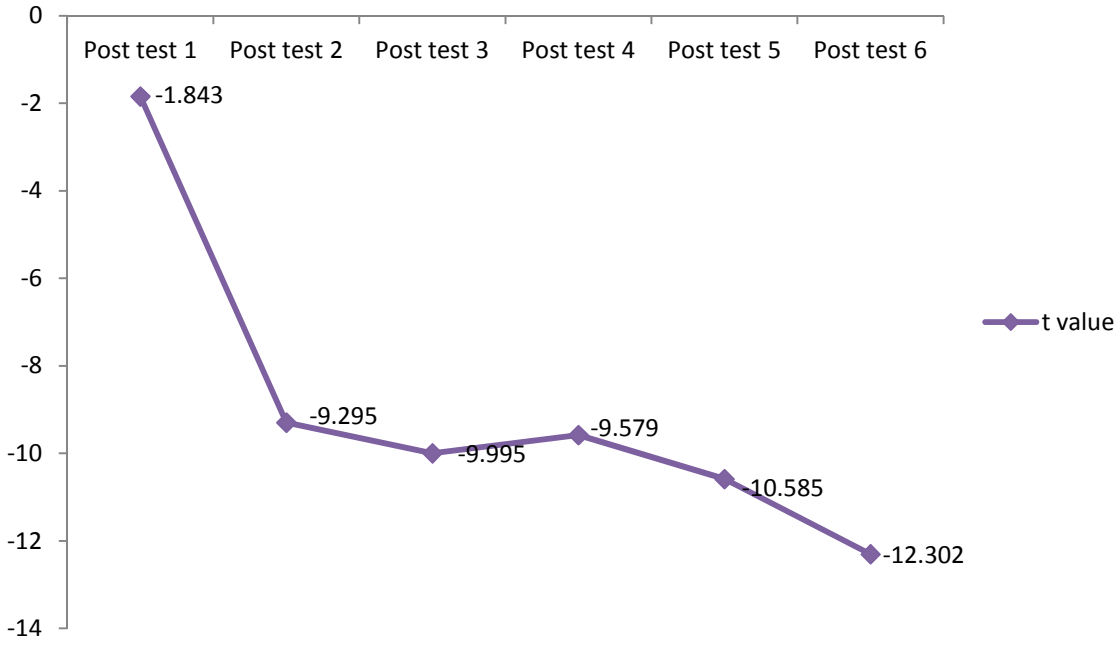


Figure 11: Comparison of Pain perception Post test t value in the experimental and control groups

SECTION F

Table 8: Distribution of subjects according to pre – test Stress scores of experimental and control group

Pre – test Stress scores	Experimental Group (n=50)	Percentage (%)	Control Group (n=50)	Percentage (%)
Up to 125	24	48	19	38
126 - 135	12	24	17	34
136 and above	14	28	14	28

The table represents that, according to Pre – test Stress score, out of 50 subjects in the experimental group 24 (48 per cent) got up to 125 and 12 (24 per cent) got between 126 and 135 and 14(28 per cent) got 136 and above. In the control group out of 50 subjects 19 (38 per cent) got up to 125 and 17 (34 per cent) got between 126 and 135 and 14(28 per cent) got 136 and above.

SECTION G

Table 9: Distribution of subjects according to Post – test Stress scores of experimental and control group

Post – test Stress scores	Experimental Group (n=50)	Percentage (%)	Post – test Stress scores	Control Group (n=50)	Percentage (%)
Up 90	22	44	Up to 125	22	44
91 - 95	17	34	126 - 135	11	22
96 and above	11	22	136 and above	17	34

The table represents that, according to Post – test Stress score, out of 50 subjects in the experimental group 22 (44 per cent) got up to 90 and 17 (34 per cent) got between 91 and 95 and 11(22 per cent) got 96 and above. In the control group out of 50 subjects 22 (44 per cent) got up to 125 and 11 (22 per cent) got between 126 and 135 and 17(34 per cent) got 136 and above.

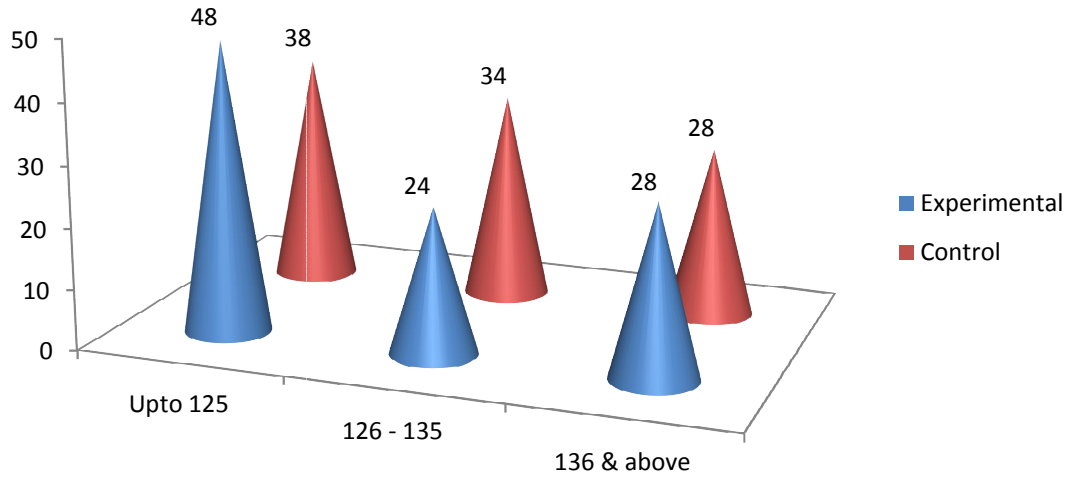


Figure 12: Distribution of subjects with reference to Pre – test Stress scores in Experimental & Control group

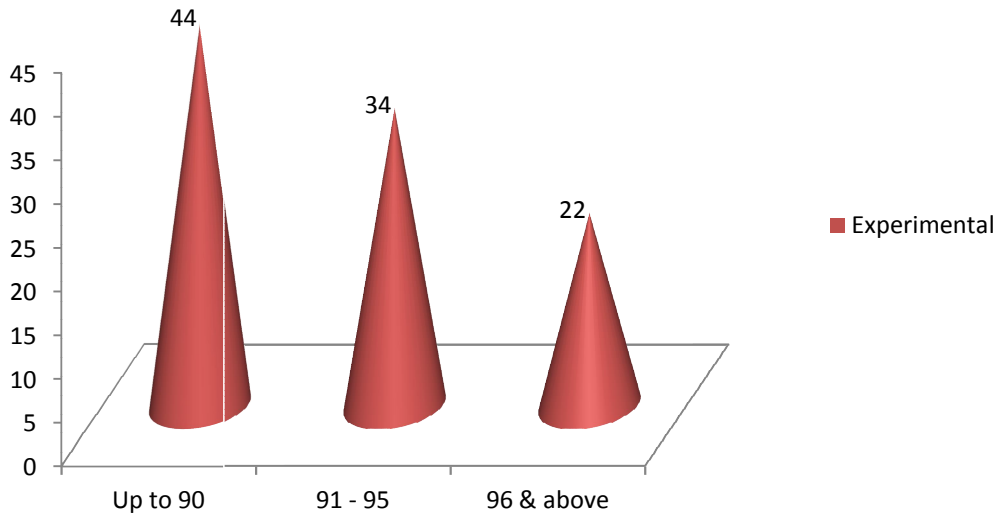


Figure 13: Distribution of subjects with reference to Post test Stress scores in Experimental group

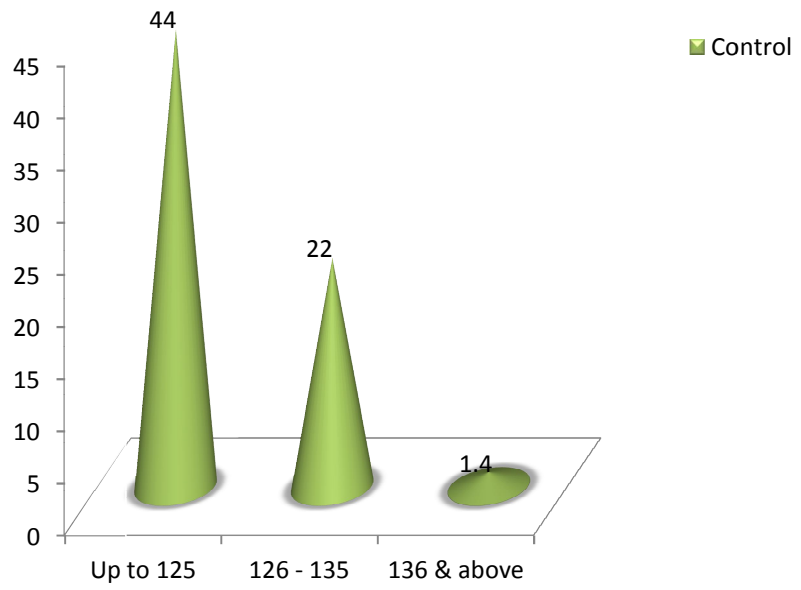


Figure 14: Distribution of subjects with reference to Post test Stress scores in Control group

SECTION H

Table10: Comparison of Mean Pre test Stress scores of experimental and control group.

S. No	Group	Mean	SD	't' value
1	Experimental group	126.50	19.27	0.31 (NS)
2	Control group	125.32	18.44	

**p<0.01 NS- Non significant

This table depicts the comparison between the pre – test Stress scores of the Experimental group and the control group. The mean score of pre test Stress of experimental group is 126.50 and that of the control group is 125.32. The 't' value is 0.31 which is not significant at 0.05 level of significance. Thus there is no significant difference in the mean Pre – test Stress scores of the experimental and control group.

SECTION I

Table 11: Comparison of Mean Post test Stress scores of experimental and control group.

S.No	Group	Mean	SD	't' value
1	Experimental group	92.12	7.3	-13.5**
2	Control group	129.32	18	

**p<0.01

This table depicts the comparison between the Post – test Stress scores of the Experimental group and the control group. The mean score of Post test Stress scores of experimental group is 92.12 and that of the control group is 129.32. The calculated 't' value is -13.5 which higher than the table value at 0.05 level of significance. Thus there is a significant difference in the mean Post – test Stress scores of the experimental and control group.

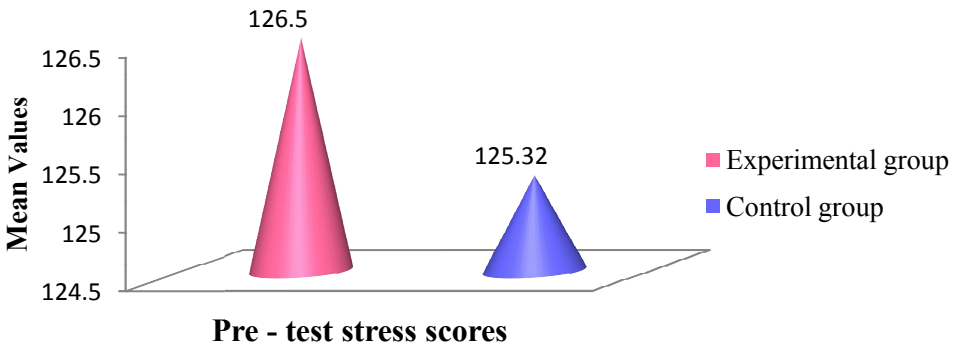


Figure 15: Comparison of mean Pre – test Stress scores of experimental and control group

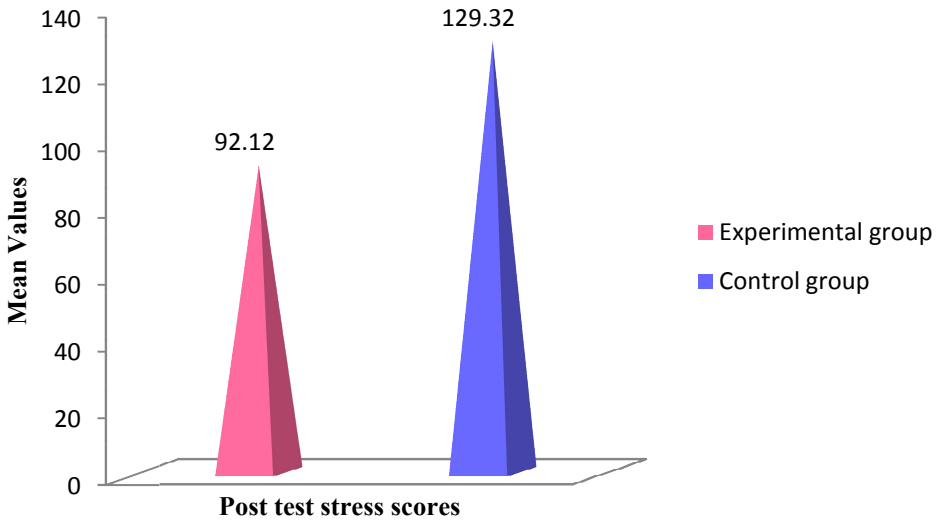


Figure 16: Comparison of mean Post – test Stress scores of experimental and control group

SECTION J

Table12: Association between demographic variables with post test pain scores of subjects of experimental group

Demographic and clinical variables	Pain			Total	df	χ^2	P value
	No pain	Mild	Moderate				
AGE							
• upto 23	14	2	0	16			
• 24 - 28	13	2	0	15	2	1.439	.487
• 29 and above	14	5	0	19			(NS)
EDUCATION							
• High School	8	2	0	10			
• UG	22	3	0	25	2	1.400	.497
• PG	11	4	0	15			(NS)
OCCUPATION							
• Working	15	5	0	20	1	1.107	.293
• Housewife	26	4	0	30			(NS)
OBSTETRIC SCORE							
• Primi	26	3	0	29			
• 2nd para	15	4	0	19	2	10.382	.006
• 3 and above	0	2	0	2			(S)
TYPE OF LSCS							
• Elective	17	5	0	22	1	.595	.441
• Emergency	24	4	0	28			(NS)

NS – Not significant S – Significant at $p < 0.05$

Table no 12 reveals that there is significant association between obstetric score with post test pain scores of subjects in the experimental group whereas there is no significant association between age education occupation, and type of LSCS with post test pain scores of subjects in the experimental group

SECTION K

Table 13: Association between demographic variables with post test pain scores of subjects of control group

Demographic and clinical variables	Pain			Total	df	χ^2	P value
	No pain	Mild	Moderate				
AGE							
• upto 23	2	14	0	16			
• 24 - 28	0	16	0	16	2	2.226	.329
• 29 and above	1	17	0	18			(NS)
EDUCATION							
• High School	0	10	0	10			.203
• UG	3	22	0	25	2	3.191	(NS)
• PG	0	15	0	15			
OCCUPATION							.145
• Working	0	20	0	20	1	2.128	(NS)
• Housewife	3	27	0	30			
OBSTETRIC SCORE							
• Primi	2	27	0	29			.911
• 2nd para	1	18	0	19	2	.187	(NS)
• 3 and above	0	2	0	2			
TYPE OF LSCS							.415
• Elective	2	20	0	22	1	.665	(NS)
• Emergency	1	27	0	28			

$p < 0.05$ NS – Not significant

Table no 13 reveals that there is no significant association between age, education occupation, obstetric score and type of LSCS with post test pain scores of subjects in the control group

SECTION L

Table 14: Association between demographic variables with post test stress scores of subjects of experimental group

Demographic and clinical variables	Stress			Total	df	χ^2	P value
	90	91-95	96 and above				
AGE							
• upto 23	4	6	6	16	4	10.42	.034 (S)
• 24 - 28	5	8	2	15			
• 29 and above	13	3	3	19			
EDUCATION							
• High School	2	4	4	10	4	5.6	.224 (NS)
• UG	12	10	3	25			
• PG	8	3	4	15			
OCCUPATION							
• Working	8	5	7	20	2	0.07	0.96 (NS)
• Housewife	16	7	7	30			
OBSTETRIC SCORE							
• Primi	12	9	8	29	4	3.8	0.43 (NS)
• 2nd para	8	8	3	19			
• 3 and above	2	0	0	2			
TYPE OF LSCS							
• Elective	12	4	6	22	2	1.63	0.44 (NS)
• Emergency	12	8	8	28			

NS – Not significant S – Significant at $p < 0.05$

Table no 14 reveals that there is significant association between age with post test pain scores of subjects in the experimental group whereas there is no significant association between education, occupation, obstetric score and type of LSCS with post test stress scores of subjects in the experimental group.

SECTION M

Table 15: Association between demographic variables with post test stress scores of subjects of control group

Demographic and clinical variables	Stress			Total	df	λ^2	P value
	upto 125	126 - 135	136 and above				
AGE							
• upto 23	5	4	7	16	4	1.81	.541 (NS)
• 24 - 28	8	2	6	16			
• 29 and above	9	5	4	18			
EDUCATION							
• High School	5	1	4	10	4	6.9	.141 (NS)
• UG	14	6	5	25			
• PG	3	4	8	15			
OCCUPATION							
• Working	8	4	8	20	2	0.53	.765 (NS)
• Housewife	14	7	9	30			
OBSTETRIC SCORE							
• Primi	12	7	10	29	4	0.8	.938 (NS)
• 2nd para	9	4	6	19			
• 3 and above	1	0	1	2			
TYPE OF LSCS							
• Elective	6	9	7	22	2	2.22	.328 (NS)
• Emergency	10	6	12	28			

$p < 0.05$ NS – Not significant

Table no 15 reveals that there is no significant association between age, education occupation, obstetric score and type of LSCS with post test stress scores of subjects in the control group.

CHAPTER V

DISCUSSION, SUMMARY, CONCLUSION, IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

This chapter deals with discussion, summary and conclusion. It also clarifies the limitations of the study, implications and recommendations given for different areas of nursing practice, nursing education, nursing administration and nursing research.

DISCUSSION

The pain and stress presented after a caesarean makes the recovery difficult and delays the mothers contact with the baby. They create an obstacle in feeding, self care and to perform the daily activities. Post caesarean pain and stress may affect the patient satisfaction and diminish the quality of life.

The present study is to evaluate the effectiveness of Benson's relaxation therapy on reduction of pain and stress among post caesarean mothers admitted in KMCH, Coimbatore. The sample size was 100 postnatal mothers who underwent caesarean section.

The investigator used tools consists of demographic and clinical variables to find whether these factors influence pain and stress, Numerical pain intensity scale to assess the pain, Hung's Postpartum stress scale to assess the level of stress and Observation checklist to measure the relaxation response. The investigator divided the study group into two and had given Benson's relaxation therapy for the experimental group and kept the control group without intervention. The data of the study were analyzed statistically based on the objectives and discussed below.

DEMOGRAPHIC AND CLINICAL VARIABLES

In the present study based on age, out of 50 subjects in the experimental group, 16(32%) belonged to the age group up to 23 years, 15(30%) belonged to the age group 24 – 28 years and 19(38%) belonged to the age group 29 years and above and out of 50 subjects in the control group, 16(32%) belonged to the age group up to 23 years,

16(32%) belonged to the age group 24 – 28 years and 18(36%) belonged to the age group 29 years and above.

Based on education, out of 50 subjects in the experimental group, 10(20%) had high school, 25(50%) had under graduate degree and 15(30%) had post graduate degree and out of 50 subjects in the control group, 17(34%) had high school, 17(34%) had under graduate degree and 16(32%) had post graduate degree.

Based on occupation, out of 50 subjects in the experimental group, 20(40%) were working and 30(60%) were home makers and out of 50 subjects in the control group, 25(50%) were working and 25(50%) were home makers.

Based on obstetric score, out of 50 subjects in the experimental group, 29(58%) were primi, 19(38%) were 2^{nd} para and 2 were 3 and above and out of 50 subjects in the control group, 29(58%) were primi, 19(38%) were 2^{nd} para and 2 were 3 and above.

Based on the type of LSCS, out of 50 subjects in the experimental group, 22(44%) had elective LSCS and 28(56%) had emergency LSCS and out of 50 subjects in the control group, 23(46%) had elective LSCS and 27(54%) had emergency LSCS.

- **The first objective is to assess the level of pain and stress among post caesarean mothers before intervention in both control and experimental group.**

According to the pre test pain score in the experimental group 50(100 per cent) had moderate level of pain in the pre test 1 and in the control group 50(100 per cent) had moderate level of pain in the pre test 1.

According to Pre – test Stress score, out of 50 subjects in the experimental group 24 (48 per cent) got up to 125 and 12 (24 per cent) got between 126 and 135 and 14(28 per cent) got 136 and above. In the control group out of 50 subjects in the experimental group 19 (38 per cent) got up to 125 and 17 (34 per cent) got between 126 and 135 and 14(28 per cent) got 136 and above.

- **The second objective is to assess the effectiveness of Benson's relaxation therapy on reducing pain and stress among post caesarean mothers in experimental group.**
  - ✓ On comparing pre test pain perception levels in experimental and control group, the 't' value of pre test 1 is 0.214 which is not significant at 0.05 level of significance, 't' value of pre test 2, pre test 3, pre test 4, pre test 5 and pre test 6 are -4.228, -3.751, -6.612, -6.731 and -7.551 respectively which are statistically significant at 0.05 level of significance
  - ✓ On comparing post test pain perception levels in experimental and control group, the 't' value of post test 1, post test 2, post test 3, post test 4, post test 5 and post test 6 are -1.843, -9.295, -9.995, -9.579, -10.585 and -12.302 respectively which are statistically significant at 0.05 level of significance which is similar to the study conducted by Tetti Solehati.,M.Kep.,(2006).
  - ✓ Results regarding the comparison of pre test stress score showed that the 't' value is 0.31 which not significant at 0.05 level of significance. Thus there is no significant difference in the mean Pre – test Stress scores of the experimental and control group.
  - ✓ Results regarding the comparison of post test stress score showed that the 't' value is -13.5 which is significant at 0.05 level of significance. Thus there is a significant difference in the mean Post – test Stress scores of the experimental and control group.
- **The third objective is to find out the association between pain and stress with demographic and clinical profile.**
  - o In this study there is significant association between obstetric score with post test pain scores of subjects in the experimental group whereas there is no significant association between age education occupation, and type of LSCS with post test pain scores of subjects in the experimental group
  - o In the control group there is no significant association between age, education occupation, obstetric score and type of LSCS with post test pain scores.

- In the experimental group there is significant association between age with post test pain scores of subjects in the experimental group whereas there is no significant association between education, occupation, obstetric score and type of LSCS with post test stress scores.
- In the control group there is no significant association between age, education occupation, obstetric score and type of LSCS with post test stress scores.

Tetti Solehati.,M.Kep.,(2006) conducted a quasi-experimental pretest- posttest study to assess the effect of Benson's relaxation therapy on pain intensity of post caesarean mother. The study was conducted at RSU Sumedang and RS Al Ihsan, Indonesia. It was given for 3 days every 12hrs for 5mins. The visual analog scale was used to measure the pain intensity. It is used before and after post caesarean along 3 days. It is a non-pharmacological pain management among client with post caesarean section. The result of the study showed that the mean of pain before intervention at the particular hospital was 7.47 cm. It was decreased to 4.57 cm. Meanwhile, in another selected hospital it was 6.67 cm. It was decreased to 3.62 cm. The study found the significant comparing of pain intensity and anxiety state before and after intervention at control and intervention group ($p= 0.00$; $\alpha=0.05$). Thus, the Benson relaxation can reduce the pain intensity among client with cesarean section.

SUMMARY:

The main aim of the study was to evaluate the effectiveness of Benson's relaxation therapy on reduction of pain and stress among post caesarean mothers admitted in KMCH, Coimbatore, for which the following objectives were formulated,

- To assess the level of pain and stress among post caesarean mothers before intervention in both control and experimental group.
- To assess the effectiveness of Benson's relaxation therapy on reducing pain and stress among post caesarean mothers in experimental group.
- To find out the association between pain and stress with demographic and clinical profile.

This study was based on Titler et al effectiveness model(2004). Time Series design was adopted for this study. 100 post caesarean mothers. (50 in the experimental group and 50 in the control group) were selected from KMCH through purposive sampling technique and subject were randomly assigned to experimental and control group. The tools used to collect data consists of demographic and clinical variables, Numerical pain intensity scale and Hung's Postpartum stress scale. The data was collected for a period of 6 weeks. Descriptive and inferential statistics were used in statistical analysis, Independent 't' test was used to compare the effectiveness of Benson's relaxation therapy in the experimental group with the control group. Chi square was used to find out the association between demographic and clinical variables with the study findings and Regression was used to find out the correlation of relaxation response with pain and stress.

The study was tested and accepted the following Hypothesis

H1: There is a statistically significant difference in the pain level after Benson's relaxation therapy among post caesarean mothers.

H2: There is a statistically significant difference in the stress level after Benson's relaxation therapy among post caesarean mothers.

MAJOR FINDING OF THE STUDY:

- The mean value of pre test 1 in the experimental group is 3.68 and that of the control group is 3.70 , when compared 't' value of pre test 1 is 0.214 which is not significant at 0.05 level of significance,
- Whereas the 't' value of pre test 2, pre test 3, pre test 4, pre test 5 and pre test 6 are -4.228, -3.751, -6.612, -6.731 and -7.551 respectively which are statistically significant at 0.05 level of significance and it may be due to the intervention given in the previous observations.
- The 't' value of post test 1, post test 2, post test 3, post test 4, post test 5 and post test 6 are -1.843, -9.295, -9.995, -9.579, -10.585 and -12.302 respectively which are statistically significant at 0.05 level of significance. The data shows that there is change in pain perception level among the experimental group after the intervention.

- There is no significant difference in the mean Pre – test Stress scores of the experimental and control group, the 't' value is 0.31 which is significant at 0.05 level of significance.
- There is a significant difference in the mean Post – test Stress scores of the experimental and control group, the 't' value is -13.5 which is significant at 0.05 level of significance. Thus proving that there is a change in the stress levels in the experimental group after intervention.
- There is significant association between age and education with post test pain scores of subjects in the experimental group whereas there is no significant association between occupation, obstetric score and type of LSCS with post test pain scores of subjects in the experimental group
- There is no significant association between age, education occupation, obstetric score and type of LSCS with post test pain scores of subjects in the control group
- There is significant association between age with post test pain scores of subjects in the experimental group whereas there is no significant association between education, occupation, obstetric score and type of LSCS with post test stress scores of subjects in the experimental group.
- There is no significant association between age, education occupation, obstetric score and type of LSCS with post test stress scores of subjects in the control group.

CONCLUSION

The post caesarean pain and stress can affect the patient's recovery and also the patient satisfaction. Despite the availability of analgesics the patients had a moderate level of pain score. Complimentary therapies play a vital role here. Therefore the investigator decided to give Benson's relaxation therapy to patients who are suffering with pain and stress post operatively and conducted a study to evaluate the effectiveness of Benson's relaxation therapy in relieving pain and stress

This study concluded that the Benson's relaxation therapy is effective in reducing the pain perception and stress in mothers who underwent LSCS. On comparing the pre

test pain perception levels between the experimental and control group the 't' value was not significant at 0.01 level of significance in pre test 1 whereas it was significant in the rest five observations. Comparison of the post test pain perception levels among the experimental and control group showed that the 't' value was significant at 0.01 level of significance for all the six observations of post test. Hence there is a statistically significant difference in the post test pain perception scores in the experimental group. Similarly, on comparing the pre test stress scores in both experimental and control group the 't' value was not significant at 0.01 level of significance whereas the 't' value was significant on comparing the post stress scores among both experimental and control group, thus proving that there is a statistically significant difference in the post test stress scores in the experimental group. The investigator thus concluded that Benson's relaxation therapy is effective in reducing post cesarean pain and stress.

IMPLICATIONS

Nurses can incorporate the Benson's relaxation therapy as one of the best alternative therapy for reducing pain and stress among post cesarean mothers. Present study findings have several implications in nursing practice, nursing education, nursing research and nursing administration.

Nursing Practice

- This study implies the effectiveness of Benson's relaxation therapy in reducing pain and stress among post caesarean mothers and creates awareness among nurses about the importance of this therapy.
- The study finding can be used to provide care to the patients.
- The nurses can gain skill in providing Benson's relaxation therapy to reduce pain and stress and can improve their quality of life.
- Benson's relaxation therapy can be given to all patients to reduce pain and stress.

Nursing education

- This study helps to improve the knowledge among the students about Benson's relaxation therapy and its effect on pain and stress.
- Nurse educators can include Benson's relaxation therapy in the curriculum so that

the students can adopt this therapy in giving care.

- Nurse educators can motivate the nursing personnel and student nurses to use Benson's relaxation therapy as a non pharmacological pain management.

Nursing research

- ✓ The study findings of the study can be a foundation to conduct study on large sample to support the efficacy.
- ✓ The study provides scope for further research.
- ✓ The study facilitates for updating the knowledge and utilization of resources in the field of practice.

Nursing administration

- Nurse administrator can organize the in-service education programmes on the alternative complementary therapies for the reduction of pain perception and stress among post caesarean mothers.
- Nurse administrator can train the midwives to practice the Benson's relaxation therapy to reduce pain and stress post operatively.
- Nurse administrator can allocate the resources and facilities for further studies.

LIMITATIONS

- This study was limited to the Post caesarean mothers.
- This study was limited the Post caesarean mothers in their 1st to 3rd post operative day.

RECOMMENTATIONS

- ❖ A similar study can be conducted with larger group to generalize the results.
- ❖ A comparative study can be conducted in different settings with similar facilities.
- ❖ A study can be conducted to know the effectiveness of various complementary therapies in reducing pain perception during labour.
- ❖ A study can be conducted to assess the knowledge, attitude and practice on complementary therapies among the midwives.

- Studies can be conducted by providing Benson's relaxation therapy among patients with various other conditions who experience pain and stress.

ABSTRACT

A study to evaluate the effectiveness of Benson's relaxation therapy on reduction of pain and stress among post caesarean mothers admitted in KMCH, Coimbatore

Objectives of the study are, to assess the level of pain and stress among post caesarean mothers before intervention in both control and experimental group, to assess the effectiveness of Benson's relaxation therapy on reducing pain and stress among post caesarean mothers in experimental group and to find out the association between pain and stress with demographic and clinical profile. Time Series design was adopted for this study. Setting of the study is OBG wards in KMCH, Coimbatore. Sample size is totally 100 post caesarean mothers. (50 in the experimental group and 50 in the control group). Non probability purposive sampling technique was used. Titler et el(2004) effectiveness model was framed. Pain perception level was assessed by using 0-10 numerical pain scale, stress was assessed using Hung's postpartum stress scale. Intervention: Pain was measured by numerical pain scale before and after providing the Benson's relaxation therapy for 3 consecutive days, twice daily. Stress was measured by Hung's Postpartum stress scale, Pre test is done on the 1st day morning before intervention and post test is done on the 3rd day evening after intervention. Benson's relaxation therapy is effective in reducing the pain perception and stress in mothers who underwent LSCS. On comparing the pre test pain perception levels between the experimental and control group the 't' value was not significant at 0.01 level of significance in pre test 1 whereas it was significant in the rest five observations. Comparison of the post test pain perception levels among the experimental and control group showed that the 't' value was significant at 0.01 level of significance for all the six observations of post test. Hence there is a statistically significant difference in the post test pain perception scores in the experimental group. Similarly, on comparing the pre test stress scores in both experimental and control group the 't' value was not significant at 0.01 level of significance whereas the 't' value was significant on comparing the post stress scores among both experimental and control group, thus proving that there is a statistically significant difference in the post test stress scores in the experimental group. Conclusion: The results supported that Benson's relaxation therapy is a simple therapy of non pharmacological measure and is effective in reducing the pain perception and stress in mothers who underwent LSCS.

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APPENDIX – A

Section -1

Demographic and clinical Profile

Age :

Education :

Occupation :

Obstetrical score :

Type of LSCS :

சுயவிபரம்

வயது .

படிப்பு .

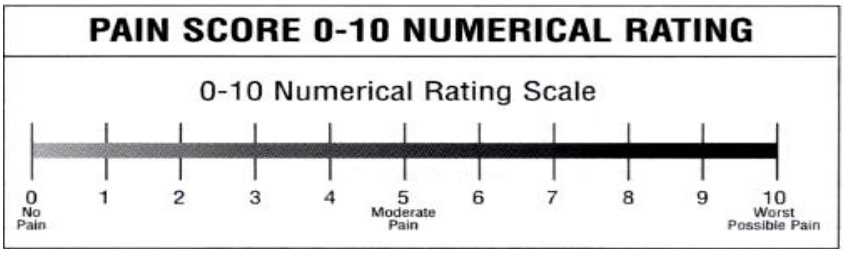
தொழில் .

மகப்பேறு எண்ணிக்கை .

சிசேரியன் வகை .

Section - 2.

Numerical pain scale.



Instruct the patient to choose a number from 0 to 10 that best describes their current pain.

0 would mean ‘No pain’ and 10 would mean ‘Worst possible pain’.

0 – no pain

1 – 2 = mild pain

3 – 4 = moderate pain

5 – 6 = severe pain

7 – 8 = very severe pain

9 – 10 = worst possible pain

Section – 3:

Postpartum stress scale

The following items are common worries that postpartum women experience. Based

on the 5 ratings below, please choose one which describes how often you have these worries at the present time.

1 = not at all

2 = seldom

3 = sometimes

4 = frequently

5 = always

1. At present, I worry about not being able to control my body weight….....

Not at all Seldom Sometimes Frequently Always

2. At present, I worry about my intake of food….....

Not at all Seldom Sometimes Frequently Always

3. At present, I worry about interrupted sleep

Not at all Seldom Sometimes Frequently Always

4. At present, I worry about not knowing the appropriate time for resuming intercourse…..

Not at all Seldom Sometimes Frequently Always

5. At present, I worry about the degree of leisure….....

Not at all Seldom Sometimes Frequently Always

6. At present, I worry about the wound….....

Not at all Seldom Sometimes Frequently Always

7. At present, I worry about the limitations of living space…….....

Not at all Seldom Sometimes Frequently Always

8. At present, I worry about lack of acceptance of the baby by my family….....

Not at all Seldom Sometimes Frequently Always

9. At present, I worry about choosing formula brands…….....

Not at all Seldom Sometimes Frequently Always

10. At present, I worry about sudden stops in my baby's breathing….....

Not at all Seldom Sometimes Frequently Always

11. At present, I worry about the baby's jaundice.....

Not at all Seldom Sometimes Frequently Always

12. At present, I worry about the results of newborn screening tests…….....

Not at all Seldom Sometimes Frequently Always

13. At present, I worry about diapering….....

Not at all Seldom Sometimes Frequently Always

14. At present, I worry about limited resources for counseling during the postpartum period.....

Not at all Seldom Sometimes Frequently Always

15. At present, I worry about differing opinions of family members on baby care…….....

Not at all Seldom Sometimes Frequently Always

16. At present, I worry about recovering my original body figure….....

Not at all Seldom Sometimes Frequently Always

17. At present, I worry about the unpredictability of the baby's schedule….....

Not at all Seldom Sometimes Frequently Always

18. At present, I worry about painful nipples due to breast feeding…….....

Not at all Seldom Sometimes Frequently Always

19. At present, I worry about the normality of lochia…….....

Not at all Seldom Sometimes Frequently Always

20. At present, I worry about the baby's sex being the opposite of what my family expected it to be.....

Not at all Seldom Sometimes Frequently Always

21. At present, I worry about the baby's body weight.....

Not at all Seldom Sometimes Frequently Always

22. At present, I worry about the baby falling sick suddenly..…….....

Not at all Seldom Sometimes Frequently Always

23. At present, I worry about less concern from my husband.….....

Not at all Seldom Sometimes Frequently Always

24. At present, I worry about the baby's spitting up.....

Not at all Seldom Sometimes Frequently Always

25. At present, I worry about bothersome taboos during the postpartum period….....

Not at all Seldom Sometimes Frequently Always

26. At present, I worry about missing the baby's cues…….....

Not at all Seldom Sometimes Frequently Always

27. At present, I worry about lack of help with household chores…….....

Not at all Seldom Sometimes Frequently Always

28. At present, I worry about inadequate emotional support from my family…….....

    Not at all Seldom Sometimes Frequently Always

29. At present, I worry about the baby's sex being the opposite of what I expected it to be…….....

    Not at all Seldom Sometimes Frequently Always

30. At present, I worry about abnormality in the baby's elimination…….....

    Not at all Seldom Sometimes Frequently Always

31. At present, I worry about the lack of my husband's participation in baby care……

    Not at all Seldom Sometimes Frequently Always

32. At present, I worry about cord-stem care……..

    Not at all Seldom Sometimes Frequently Always

33. At present, I worry about the flabby flesh of my belly…….....

    Not at all Seldom Sometimes Frequently Always

34. At present, I worry about the baby's rash….. ……

    Not at all Seldom Sometimes Frequently Always

35. At present, I worry about the baby choking during feeding…….....

    Not at all Seldom Sometimes Frequently Always

36. At present, I worry about the baby's appearance differing from my family's expectation…….....

    Not at all Seldom Sometimes Frequently Always

37. At present, I worry about the financial burden of the family…….....

    Not at all Seldom Sometimes Frequently Always

38. At present, I worry about bathing the baby….....

    Not at all Seldom Sometimes Frequently Always

39. At present, I worry about the baby's crying….....

    Not at all Seldom Sometimes Frequently Always

40. At present, I worry about the shape of the baby's head due to the sleeping position…

    Not at all Seldom Sometimes Frequently Always

41. At present, I worry that the baby will not adapt to the shift from breast feeding to formula.....

    Not at all Seldom Sometimes Frequently Always

42. At present, I worry about my sexual intercourse due to the stretching of the vagina….

    Not at all Seldom Sometimes Frequently Always

43. At present, I worry about the baby's intake of milk…….....

    Not at all Seldom Sometimes Frequently Always

44. At present, I worry about insufficient sleep……..

    Not at all Seldom Sometimes Frequently Always

45. At present, I worry about dressing the baby for extreme weather conditions….....

    Not at all Seldom Sometimes Frequently Always

46. At present, I worry that the baby's nose getting plugged up when sleeping….....

    Not at all Seldom Sometimes Frequently Always

47. At present, I worry about lack of information regarding infant's growth and development….....

    Not at all Seldom Sometimes Frequently Always

48. At present, I worry about feeding my baby….....

Not at all Seldom Sometimes Frequently Always

49. At present, I worry about dressing my baby….....

Not at all Seldom Sometimes Frequently Always

50. At present, I worry about fatigue….....

Not at all Seldom Sometimes Frequently Always

51. At present, I worry that I feel like crying…….

Not at all Seldom Sometimes Frequently Always

52. At present, I worry about poor marital relationship…….....

Not at all Seldom Sometimes Frequently Always

53. At present, I worry about lack of information regarding self-care……...…

Not at all Seldom Sometimes Frequently Always

54. At present, I worry about unfading striae gravidarum….....

Not at all Seldom Sometimes Frequently Always

55. At present, I worry about insufficient breast milk…….....

Not at all Seldom Sometimes Frequently Always

56. At present, I worry about rough skin….....…

Not at all Seldom Sometimes Frequently Always

57. At present, I worry about looking after my family and keeping up with my job…...

Not at all Seldom Sometimes Frequently Always

58. At present, I worry about lack of help with baby care…….....

Not at all Seldom Sometimes Frequently Always

59. At present, I worry about body soreness….....

Not at all Seldom Sometimes Frequently Always

60. At present, I worry about not knowing the appropriate time for exercise….....

Not at all Seldom Sometimes Frequently Always

61. At present, I worry about the baby's immunizations.....

Not at all Seldom Sometimes Frequently Always

62. At present, I worry about the deformation of my breast….....

Not at all Seldom Sometimes Frequently Always

ஹங் மகப்பேற்றுக்கு பின் ஏற்படும் மன அழுத்தத்திற்கான அளவீடு - தமிழ் பதிப்பு

குழந்தை பேறுக்கு பின் பெண்களுக்கு ஏற்படும் பொதுவான கவலைகள் கீழே கொடுக்கப்பட்டுள்ளது. கீழே கொடுக்கப்பட்டுள்ள 5 மதிப்பீடுகளின் அடிப்படையில் நீங்கள் தற்போது எதிர்கொள்ளம் கவலையை விவரிக்கும் ஓர் தேர்வை செய்யவும்.

1 - இல்லவே இல்லை

2 - எப்போதாவது

3 - சில நேரங்களில்

4 - அடிக்கடி

5 - எப்போதும்

எண்	கேள்வி	இல்லவே இல்லை	எப்போதாவது	சில நேரங்களில்	அடிக்கடி	எப்போதும்
1.	தற்போது, நான் என் உடல் எடையை கட்டுப்படுத்த முடியவில்லை என்று கவலைப்படுகிறேன்.					
2.	தற்போது, நான் உட்கொள்ளும் உணவை குறித்து கவலைப்படுகிறேன்.					
3.	தற்போது, நான் தடைப்படும் என் தூக்கத்தை குறித்து கவலைப்படுகிறேன்.					
4.	தற்போது, நான் மீண்டும் உடலுறவில் ஈடுபட ஏற்ற நேரம் எப்போது என்று எண்ணி கவலைப்படுகிறேன்					
5.	தற்போது, நான் என் ஓய்வு நேரங்களை குறித்து கவலைப்படுகிறேன்.					
6.	தற்போது, என்னுடைய புண்ணை குறித்து கவலைப்படுகிறேன்.					
7.	தற்போது என்னுடைய வீட்டில் இடப் பற்றாக்குறைக் குறித்து கவலைப்படுகிறேன்.					
8.	தற்போது, என் குடும்பம் என் குழந்தையை ஏற்றுக் கொள்ளுமா என்று எண்ணி கவலைப்படுகிறேன்.					
9.	தற்போது, எவ்வகையான ஊட்டச்சத்து பொருட்களை என் குழந்தைக்கு					

	கொடுப்பது என்று எண்ணி கவலைப்படுகிறேன்.					
10.	தற்போது , என் குழந்தையின் சுவாசம் திடீரென்று தடைப்படுமோ என்று எண்ணி கவலைப்படுகிறேன்.					
11.	தற்போது, என் குழந்தைக்கு ஏற்படும் மஞ்சள் காமாலையை குறித்து கவலைப்படுகிறேன்.					
12.	தற்போது, என் குழந்தைக்கு செய்யப்பட்ட சோதனை முடிவுகளை குறித்து எண்ணி கவலைப்படுகிறேன்.					
13.	தற்போது, என் குழந்தைக்கு ஈர துணி மாற்றுவதை குறித்து கவலைப்படுகிறேன்.					
14.	தற்போது, பிள்ளை பேறுக்கு பின் போதிய ஆலோசனைகள் கிடைக்கவில்லை என்று எண்ணி கவலைப்படுகிறேன்.					
15.	தற்போது, குழந்தை பராமரிப்பு குறித்து குடும்ப உறுப்பினர்களிடம் மாறுபட்ட கருத்துகள் இருப்பதை எண்ணி கவலைப்படுகிறேன்.					

16.	தற்போது, எனது முந்தைய உடல் வாகை மீண்டும் பெற முடியுமா எண்ணி கவலைப்படுகிறேன்.					
17.	தற்போது, என் குழந்தையின் தினசரி செயல்பாடுகளை நிதானிக்க முடியாமல் கவலைப்படுகிறேன்.					
18.	தற்போது, என் குழந்தைக்கு தாய்பால் கொடுப்பதால் முலைக்காம்புகளில் ஏற்படும் வலியை பற்றி கவலைப்படுகிறேன்.					
19.	தற்போது பிள்ளைப்பேற்றுக்கு பின் வரும் உதிரப்போக்கு சரியாக இருப்பதை எண்ணி கவலைப்படுகிறேன்.					
20.	தற்போது, என் குழந்தையின் பாலிணம் என் குடும்பத்தாரின் எதிர்பார்ப்பிற்கு எதிர்மறையான இருப்பதை எண்ணி கவலைப்படுகிறேன்.					
21.	தற்போது, என் குழந்தையின் உடல் எடையை எண்ணி கவலைப்படுகிறேன்.					
22.	தற்போது, என் குழந்தை திடீரென்று உடல்நிலை சரியில்லாமல் போவதை					

	எண்ணி கவலைப்படுகிறேன்.					
23.	தற்போது, என் கணவர் என் மேல் குறைந்த அக்கறை கொண்டிருப்பதை எண்ணி கவலைப்படுகிறேன்.					
24.	தற்போது, உணவு உண்டவுடன் என் குழந்தை வாந்தி பண்ணுவதை எண்ணி கவலைப்படுகிறேன்.					
25.	தற்போது, பிள்ளை பேறுக்கு பின் கடைபிடிக்க வேண்டிய மூடபழக்கவழக்கங்களை எண்ணி கவலைப்படுகிறேன்.					
26.	தற்போது, என் குழந்தையின் தேவைகளை அறியாமல் விட்டு விடுவதை எண்ணி கவலைப்படுகிறேன்.					
27.	தற்போது, தினசரி வீட்டு வேலைகள் செய்வதற்கு போதிய உதவியில்லாமல் இருப்பதை எண்ணி கவலைப்படுகிறேன்.					
28.	தற்போது, என் குடும்பத்தினரிடம் இருந்து எனக்கு மனதளவில் போதிய உதவிகள் இல்லாததை எண்ணி கவலைப்படுகிறேன்.					
29.	தற்போது, நான் எதிர்பார்த்த குழந்தை பிறக்காததை					

	எண்ணி கவலைப்படுகிறேன்.					
30.	தற்போது, என் குழந்தை தன் கழிவுகளை வெளியேற்றுவதில் பிரச்சனை உள்ளது என்று எண்ணி கவலைப்படுகிறேன்.					
31.	தற்போது, என் குழந்தை பராமரிப்பில் என் கணவரின் பங்கு போதிய அளவு இல்லாததை எண்ணி கவலைப்படுகிறேன்.					
32.	தற்போது, என் குழந்தையின் தொப்புள் கொடி பராமரிப்பை எண்ணி கவலைப்படுகிறேன்.					
33.	தற்போது, தொங்கும் என் தொப்பையை எண்ணி கவலைப்படுகிறேன்.					
34.	தற்போது, என் குழந்தைக்கு ஏற்படும் சரும பாதிப்புகளை எண்ணி கவலைப்படுகிறேன்.					
35.	தற்போது, என் குழந்தைக்கு உணவு ஊட்டும் போது, திடீரென்று ஏற்படும் விக்கலை எண்ணி கவலைப்படுகிறேன்.					
36.	தற்போது, என் குழந்தையின் தோற்றம் என் குடும்பத்தினரின் எதிர்பார்ப்பிற்கு ஏற்றவாறு					

	இல்லாததை எண்ணி கவலைப்படுகிறேன்.					
37.	தற்போது, என் குடும்பத்தின் பொருளாதார சுமையை எண்ணி கவலைப்படுகிறேன்.					
38.	தற்போது, என் குழந்தையை குளிப்பாட்டுவதை எண்ணி கவலைப்படுகிறேன்.					
39.	தற்போது, என் குழந்தை அழுவதை எண்ணி கவலைப்படுகிறேன்.					
40.	தற்போது, என் குழந்தை தூங்கும் முறையால் தலையின் வடிவத்தில் ஏற்படும் மாற்றத்தை எண்ணி கவலைப்படுகிறேன்.					
41.	தற்போது, என் குழந்தையை தாய்பாலில் இருந்து மாற்று உணவிற்கு எப்படி பழக்கப்படுத்துவது என்று எண்ணி கவலைப்படுகிறேன்.					
42.	தற்போது, நான் உடலுறவில் ஈடுபடும் போது கர்ப்பவாயில் ஏற்படும் மாற்றங்களை எண்ணி கவலைப்படுகிறேன்.					
43.	தற்போது, என் குழந்தை உட்கொள்ளும் பாலின் அளவை எண்ணி					

	கவலைப்படுகிறேன்.					
44.	தற்போது, எனக்கு போதிய தூக்கமின்மையை எண்ணி கவலைப்படுகிறேன்.					
45.	தற்போது, என் குழந்தைக்கு கடினமான வானிலை காலங்களில் எவ்விதமான உடைகளை தெரிந்தெடுப்பது என்று எண்ணி கவலைப்படுகிறேன்.					
46.	தற்போது, என் குழந்தை தூங்கும் போது ஏற்படும் மூக்கடைப்பை எண்ணி கவலைப்படுகிறேன்.					
47.	தற்போது, என் குழந்தையின் உடல் வளர்ச்சி மற்றும் முன்னேற்றம் போன்ற காரியங்களை குறித்த அறிவு எனக்கு குறைவாக இருப்பதை எண்ணி கவலைப்படுகிறேன்.					
48.	தற்போது, என் குழந்தைக்கு உணவு ஊட்டுவதை குறித்து கவலைப்படுகிறேன்.					
49.	தற்போது, என் குழந்தைக்கு உடை உடுத்துவதை குறித்து கவலைப்படுகிறேன்.					
50.	தற்போது, எனக்கு ஏற்படும்					

	உடல் சோர்வை எண்ணி கவலைப்படுகிறேன்.					
51.	தற்போது, நான் அழுவதை போல உணர்வதால் கவலைப்படுகிறேன்.					
52.	தற்போது, என் கணவரோடு சரியான திருமண உறவு இல்லாததை எண்ணி கவலைப்படுகிறேன்.					
53.	தற்போது, என்னை நான் சரியாக பார்த்துக் கொள்வதை குறித்த அறிவு எனக்கு இல்லாததை எண்ணி கவலைப்படுகிறேன்.					
54.	தற்போது, என் வயிற்றில் ஏற்பட்டுள்ள நிறுமிக் கோடுகள் எப்போது மறையும் என்று எண்ணி கவலைப்படுகிறேன்.					
55.	தற்போது, என் குழந்தைக்கு போதிய தாய்பால் இல்லாததை எண்ணி கவலைப்படுகிறேன்.					
56.	தற்போது, எனக்குள்ள சொரசொரப்பான தோலை எண்ணி கவலைப்படுகிறேன்.					
57.	தற்போது, நான் என் குடும்பத்தையும், என் வேலையையும் எப்படி சரிவர பார்த்துக் கொள்வது என்று எண்ணி கவலைப்படுகிறேன்.					
58.	தற்போது, என் குழந்தையை கவனிக்க எனக்கு போதிய					

	உதவி இல்லாததை எண்ணி கவலைப்படுகிறேன்.					
59.	தற்போது, எனக்குள்ள உடல் வேதனைகளை குறித்து கவலைப்படுகிறேன்.					
60.	தற்போது, நான் உடற்பயிற்சி செய்வதற்கு ஏற்ற நேரம் பற்றி கவலைப்படுகிறேன்.					
61.	தற்போது, என் குழந்தைக்கு கொடுக்க வேண்டிய தடுப்பூசிகளை குறித்து கவலைப்படுகிறேன்.					
62.	தற்போது, என் மார்பகத்தின் தோற்றம் மாறுவதை எண்ணி கவலைப்படுகிறேன்.					

APPENDIX – B

Benson's Relaxation therapy:

There are two essential steps:

1. Repetition of a word, sound, phrase, prayer, or muscular activity.
2. Passive disregard of everyday thoughts that inevitably come to mind and the return to your repetition.

The following is the generic technique is used in Benson's relaxation therapy:

1. Pick a focus word, short phrase, or prayer that is firmly rooted in your belief system, such as "one," "peace," "The Lord is my shepherd," "Hail Mary full of grace," or "shalom."
2. Sit quietly in a comfortable position.
3. Close your eyes.
4. Relax your muscles, progressing from your feet to your calves, thighs, abdomen, shoulder, neck and head.
5. Breathe slowly and naturally, and as you do, say your focus word, sound, phrase, or prayer silently to yourself as you exhale.
6. Assume a passive attitude. Don't worry about how well you're doing. When other thoughts come to mind, simply say to yourself, "Oh well," and gently return to your repetition.
7. Continue for ten to 20 minutes.
8. Do not stand immediately. Continue sitting quietly for a minute or so, allowing other thoughts to return. Then open your eyes and sit for another minute before rising.
9. Practice the technique twice daily.

APPENDIX - D

REQUISITION FOR CONTENT VALIDITY OF THE TOOL

From,

Ms. Sherlin Sapthica. R,

II Year M.Sc(N),

KMCH College of Nursing,

Coimbatore – 14.

To,

Mrs.S.P.Latha, M.Sc(N),

Principal,

RVS College of Nursing,

Kannampalayam,

Coimbatore.

Through,

The Principal,

KMCH College of Nursing,

Coimbatore – 14.

Respected Madam,

Sub: Seeking expert opinion and content validity regarding

I ,Ms. Sherlin Sapthica. R, II Year M.Sc(N), student of KMCH College of Nursing, wish to undertake a study titled, "**A Study To Evaluate The Effectiveness Of Benson's Relaxation Therapy On Reduction Of Pain And Stress Among Post Caesarean Mothers Admitted In KMCH, Coimbatore**". As it is a part of partial fulfillment of my post graduate programme, it will be of immense help if you could peruse the proposal and research tool. Here with I am enclosing the copy of the same. Kindly do the needful.

Thanking You

Place: Coimbatore

Date: 2.9.13

Yours Faithfully,

Sherlin Sapthica R

Sherlin Sapthica. R

The Principal,
K.M.C.H. College of Nursing,
P.B. No : 3209, Avanashi Road,
Coimbatore - 641 014.

K M C H COLLEGE OF NURSING

(Recognised by the Government of Tamil Nadu & Indian Nursing Council New Delhi)
Affiliated to the Tamil Nadu Dr. MGR. Medical University, Chennai
K.M.C.H. Campus, Avanashi Road, Coimbatore - 641 014. INDIA
Ph : (0422) 4323740, 4323721 Telefax : (0422) 2627525 E-mail : info@kmch.ac.in Website : www.kmch.ac.in

Ref : KMCT/2961/09/13

September 3rd ,2013

To

Dr.Velam Thennavan., MBBS,DFFP , MRCOG.,
Consultant Obstetrician & Gynaecologist,
Kovai Medical Center and Hospital,
Coimbatore – 14

Dear Madam

Greetings to you.

I submit that one of our M.Sc(N) final year students by name Ms. Sherlin Saptthica.R Specializing in Obstetrics & Gynecological Nursing in our college desires to conduct a study Titled **"A study to evaluate the effectiveness of Benson's relaxation therapy on reduction of pain and stress among post caesarean mothers admitted in Kovai Medical center and Hospitals,Coimbatore."** As a part of her M.Sc (N) curriculum.

As she is in need of Medical Expert to complete the study, I request you to guide the student.

Thanking you,

Yours Truly,

Prof. DR. S. Madhavi, M.Sc(N)., Ph.D.,
Principal.

The Principal,
K.M.C.H. College of Nursing,
P.B. No : 3209, Avanashi Road,
Coimbatore - 641 014.

Dr. VELAM THENNAVAN
MBBS.,DFFP.,MRCOG (London)
Consultant Obstetrician & Gynaecologist,
Reg. No. 63983
Kovai Medical Center and Hospital Limited.
P.B. No. 3209, Avanashi Road,
Coimbatore - 641 014. India.

Administrative Office :
Kovai Medical Center Research & Educational Trust
K.M.C.H. Campus, Avanashi Road, Coimbatore - 641 014.
Ph : (0422) 4323721, Telefax : (0422) 2627196 E-mail : info@kmch.ac.in Website : www.kmch.ac.in

APPENDIX - C

KMCH ETHICS COMMITTEE

KOVAI MEDICAL CENTER AND HOSPITAL LIMITED

Post Box No. 3209, Avanashi Road, Coimbatore - 641 014. INDIA
✆ : (0422) 4323800 Fax : (0422) 4270805

APPROVED

EC Registration Number
ECR/112/Inst/TN/2013

Ref: EC/AP/272/09/2013

24.09.2013

To:

The Principal,
KMCH College of Nursing,
Coimbatore - 641 014
Tamilnadu, India.

Dear Madam,

The proposal entitled "**A study to evaluate effectiveness of Benson's relaxation therapy on reduction of pain and stress among post caesarean mothers admitted in KMCH, Coimbatore.**" submitted by **Ms. Sherlin Sapthica R** under guidance of **Mrs.R.Indumathi** was reviewed by the Ethics Committee in its meeting held on 21.09.2013 and permission is granted to carryout the study at Kovai Medical Center and Hospital Ltd, Coimbatore, India.

Thanking you,

Yours faithfully,

Dr. P. R. Muthuswamy 24/9/13
Chairman, KMCH Ethics Committee

Dr. P. R. MUTHUSWAMY,
MA ,M[illegible] DM(HM-A)Ph.D.,
Chairman
Ethics Committee
Kovai Medical Center and Hospital
Avanashi Road,
COIMBATORE-641 014.

Enclosure: Copy to Dr.Velam Thennavan

APPENDIX - E

CERTIFICATION OF CONTENT VALIDITY

This is to certify that I have perused the research proposal submitted by Ms. Sherlin Sapthica. R, "A STUDY TO ASSESS THE EFFECTIVENESS OF BENSON'S RELAXATION THERAPY ON REDUCTION OF PAIN AND STRESS AMONG POST CAESAREAN MOTHERS ADMITTED IN KMCH, COIMBATORE". I found that the methodology and tools are appropriate.

Place: coimbatore

Date: 30/09/13

Signature and Seal

30.09.13

PRINCIPAL
R.V.S. COLLEGE OF NURSING
KANNAMPALAYAM
TRICHY ROAD, SULUR
COIMBATORE - 641 402

R.V.S. COLLEGE OF NURSING
CBE. 641402.

CERTIFICATION OF CONTENT VALIDITY

This is to certify that I have perused the research proposal submitted by Ms. Sherlin Sapthica. R, "A STUDY TO ASSESS THE EFFECTIVENESS OF BENSON'S RELAXATION THERAPY ON REDUCTION OF PAIN AND STRESS AMONG POST CAESAREAN MOTHERS ADMITTED IN KMCH, COIMBATORE". I found that the methodology and instruments are appropriate

Place: Coimbatore

Date: 31/1/14.

Signature and Seal

Dr. VELAM THENNAVAN
MBBS., DTFP, MRCOG (London)
Consultant Obstetrician & Gynaecologist,
Reg. No. 63063
Kovai Medical Center and Hospital Limited,
P.B. No. 3253, Avanashi Road,
Coimbatore - 641 014. India.

CERTIFICATE OF CONTENT VALIDITY

This is to certify that I have perused the research tool submitted by Miss. Sherlin Sapthica. R, "A STUDY TO EVALUATE THE EFFECTIVENESS OF BENSON'S RELAXATION THERAPY ON REDUCTION OF PAIN AND STRESS AMONG POST CAESAREAN MOTHERS ADMITTED IN KMCH, COIMBATORE." I found that the Tamil translation of the tool is appropriate.

Place: கோயம்புத்தூர்

Date: 26.09.13

Signature & Seal

தமிழ்த்துறைத் தலைவர்
டாக்டர் என். ஜி. பி. கலை அறிவியல் கல்லூரி
கோயம்புத்தூர்-641 035

APPENDIX –F

LIST OF EXPERTS

- **Dr. Velam Thennavan, M.D(O&G)., DNB**

  Consultant Obstetrician and Gynecologist,

  Kovai Medical Centre and Hospital,

  Coimbatore – 14.

- **Prof. S.P.Latha, M.Sc(N).,**

  Principal,

  R V S College If Nursing,

  TrichyRoad, Kannaampalayam,

  Coimbatore.

- **DR. S. Thangamanigandan. M.A., M.Phil., Ph.D.,**

  Assistant Professor,

  Department of Tamil,

  N.G.P College of Arts and Science

  Coimbatore – 48.

- **Prof. S.Renuka, M.Sc. (N).,**

  HOD of Obstetrics and Gynaecological Nursing,

  KMCH College of Nursing,

  Coimbatore- 14.

- **Mrs. P. Padma, M.Sc (N).,**

  Associate Profeesor

  OBG department

  KMCH College Of Nursing

  Coimbatore-14.